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ART. 142.—*A Notice of the occurrences in Natural History and the arts and sciences which have a connection with it for a few years past, in our United States of North America.* By SAMUEL L. MITCHELL.—[Communicated for the New-York Farmer and Hor. Repository.]

Growth and Manufacture of Silk.

During 1828, 6,000 copies of a compilation on the growth and manufacture of Silk, were published by order of the House of Representatives in Congress. This enquiry was commenced in December 1826, when on the motion of Mr. Miner, a committee was directed to report whether any legislative provisions were necessary or proper to promote the production of silk. In May 1826, Mr. Van Renssellaer from the committee on agriculture, recommended that the Secretary of the Treasury cause to be prepared a well digested manual, containing the best practical information concerning silk, adapted to the different parts of the Union, and lay the same before the National Legislature at the beginning of the ensuing session. Accordingly in Feb. 7th 1828, as soon as the work could be prepared, he wrote a letter to the Speaker, containing the information demanded, whereupon, the aforesaid number of the Manual and report, were ordered to be printed for public information. They form a book of two hundred pages, illustrated by tables plates and an index, a list of contents, and the queries proposed in the circular address from the treasury department during 1826. Our fellow citizens may now felicitate themselves on possessing the most instructive & practical report on this subject, extant; for it contains the substance of Count Dandolo's great performance on the varieties of the insects, Mr. Fanshaw's improvements for spinning, doubling, and twisting silk, Mr. Genet's valuable memoir, and every thing besides from books and correspondence, which could be procured. In addition to all which the compiler, who is understood, to be Dr Mease, has given his own observations and researches, and the private stores of intelligence he was able to command.—Herein may be found the natural history of the Bombyx or silk worm, of its varieties and numerous larvæ, of other creatures of the tribe which produce silk; that of mulberry trees including our native red *morus* and its varieties, as well as the Asiatic white species with its varieties, and the mode of cultivating them; a description of the laboratory or the structure for containing them while they feed and work; the art of rearing silk worms and carying them through the six ages into which their life is divided; the production, laying, and preservation, of the eggs, and a general view of the facts stated in the work. Then follows a chapter on the diseases of these animals from bad and sudden changes of temperature and certain other causes producing five specific disorders which are enumerated, after which instructions in ample form are detailed for reeling, doubling, weaving, and the other operations. The appendix contains directions for dyeing silk. To the whole, is prefixed a learned and interesting account of silk from the earliest ages in the eastern hemisphere; and of its introduction into these United States, with reports of the several trials in different parts from time to time: Mr. Bulkley's letter on the manufacture of sewing silk and silk twist in Windham County, Connecticut, page 213—214 is an important document.

In order to render the body of information on the subject more ample and satisfactory, Dr. Mease has prepared a translation of Count Hazzis' publication in Bavaria relative to these animals and their management, with figures of them in their different ages, which has like the preceding tract, been printed by the aforesaid authority for distribution.

Rearing the Grape Vine, and preparation of Wine.

From an early day after the colonization of Virginia, the production of silk was deemed of very high importance, and even inforced by law. The cultivation of the Vine was begun about the same time, and considered as a matter of serious moment, from that time to the present, the raising of grapes has been mostly left to foreign countries with the exception of the wild growth of our forests and some productions in gardens, chiefly of imported kinds. However about thirty years ago or more, a society was formed in Philadelphia for promoting the culture of the wine-bearing grape; and with such success that the liquid was prepared by Mr. Legaux of good quality and brought to market, though in moderate quantity. Then John James Dufour and his associates about the year 1800, obtained a tract of land from Congress on the bank of Ohio river, under certain facilities for planting vines, and commenced the culture. Recent reports within a few years assure us that their efforts have been successful, and wine of excellent quality has been produced. The late Governor Worthington brought to the second Linnean festival at Flushing, a fair sample of the wine prepared on his own

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plantation in Ohio state and now very lately Major Adlum has, exhibited at his plantation near Georgetown in the district of Columbia, and to his fellow citizens in different parts of the nation fair specimens of the Cahawba wine, prepared under his own eyes from fruit of his own raising. From all this information there seems to be no doubt that wine may be reckoned among the productions of these parts of North America, that the soil and climate of the middle, southern, and northern, states are as favourable to the Vine, as those of any parts of the world, and the choice indigenous sorts as well as the select exotic, promise ample returns to those who will cultivate them. It being now proved that the vine may be reared & wine prepared to any desired extent, the books very lately published by Messrs. Adlum, Prince, Wilson, and the tracts by Messrs. Parmentier and Allen, contains interesting directions ; but what is yet more interesting,three of the gentlemen, Messrs. Parmentier, Prince, and Adlum, possess very extensive collections in their vineries, for supplying all the demands, however great, of their customers. It it may be concluded that if the people of the United States shall not drink wine of their domestic preparation, it will not be the fault of the soil or climate, but be the consequence of unskilfulness or neglect.

Preparation of Oil, from Olive, Poppy, and Sesamum.

The means of producing oil I consider as being in a train of complete experiment, I mean the oil fit for for food and medicine. Since the introduction of the Olive from Egypt to Greece and the other countries north of the Medeteranean Sea, that tree has been cultivated for the production of oil in the several countries, that have received it. In the eastern hemisphere where the olive grows it is esteemed a production of the highest moment to the sustenance and comfort of man. The crop however in some countries especially in the south of France is subject to considerable uncertainty by reason of frosts, and many of the trees themselves are destroyed by it, once in about seven or eight years. This defalcation of the oil-crop, in the south has led to the cultivation of the poppy for its oil, in the northern provinces. The oil prepared from the seeds of poppies possesses none of the narcotic quality which inheres in its white sap or milky juice. It is perfectly mild and wholesome, answers the best purposes in diet, medicine, and the arts ; and is transported in large quantities to the southern departments, to supply the deficiency of olive-oil. That the European olive tree would thrive in the southern section of our United States, cannot admit a doubt. Proprietors of lands may have as many of them as they please. But it must be considered that our population has comparatively little need of this vegetable oil for food. Fredonia, more especially through its middle and northern sections, abounds with butter prepared from the milk of the cow. This article which is within the reach of every family is prefered to olive oil. In the regions and districts where swine are propogated in great numbers, the excellency of their flesh recommends them to general consumption for aliment.--- Pork is a standing article of diet throughout the country. The fat of these animals furnishes abundance of nutritious and savoury lard for cookery : and the bacon which has undergone the process of smoking affords plenty of a similar, and as some think, a preferable product. Among a people therefore, where *butter* and *lard* are so abundant, as to be within the reach of every citizen, it is not likely that the culture of the olive will attract any considerable attention. Still, if a vegetable oil should be required, the seed of the *Bhenne plant*, will furnish it to any amount. This is a species of *Sesamum*, whose seed like those of the okra (hibiscus esculentus) and peanuts (arachis hypogæc) were first brought by the negro slaves from Africa. It is an annual plant, and like flax yields a good crop of seed, like cotton, it produces in the latitude of New-York, flowers but does not ripen seeds. The grain, by simple expression yields a plenty of oil, which is mild and nutritious, having all the good qualities of olive oil, without the disposition to grow rancid by keeping. The Bhenne seed of Georgia, has afforded by expression the best oil for sallads and other purposes in New-York. I consider therefore, that means of preparing oil in the southern states as experimentally proved. I have used it at my table, and wish I had more for daily use.

Introduction of the Date-bearing Palm.

A few years ago, there was considerable excitement in public opinion in relation to the introduction of the Date-bearing Palm-tree in to the southern States, (Phœnix dactylifera.) I consider that the culture might be successfully conducted, and if the proprietors of land should not plant them with these trees reckoned invaluable in many parts of Africa and Asia, the neglect may probably be explained, for, where maize, rice, sugar,&potatoes are the abundant products of our ground, it can hardly be expected the inhabitants woul give a preference to Dates. I consider them nevertheless, as articles of resource for human sustenance, whenever it shall be deemed expedient to introduce them.

Surveys under the treaty of Ghent.

Great additions have been made to our physical geography by the measures necessary to carry into effect the Treaty of Ghent, under the orders of the respective governments, to ascertain the boundary line, and thereby to settle questions of territorial

jurisdiction and limits, various and important disclosures have been made by gentlemen employed on both sides. Among those attached to the commission on the part of the U. S. good service to science was rendered by Col. Samuel Hawkins, and to much greater extent by Major Joseph Delafield; and on the part of Great Britain, by Dr. Tjarks, and Dr. Bigsby. Much has been achieved by Delafield and Bigsby to improve our knowledge of the mineralogy and geology of the middle and upper lakes.—They rank high on the scale of original explorers.

Doings of Canal Companies.

The enterprize of canal companies, has in several instances, enlarged our acquaintance with organic remains. For example, it may be mentioned, that in excavating the ground for the Morris canal in New Jersey, enormous tusks of teeth, and Bones of that extinct elephantine animal the Mastodon have been discovered, and in performing the diggings necessary for the Delaware and Chesapeake canal, singular teeth of that extinct reptile the monitor, gryphite shells of extraordinary size and weight, with divers other relicks have been brought to light.

Formation of learned Societies and Museums.

Formerly such articles were mostly thrown away, after having been examined sufficiently to satisfy the finder and his acquaintances, or fell into the hands of some European traveller who carried them out of the country Latterly circumstances have very much altered. Societies for cultivating natural history have become numerous throughout the land; and to each is attached a museum, in which the proper objects are deposited and preserved. Among these respectable institutions, the academy of National Science at Philadelphia, and the Lyceum of Natural History in New-York are preeminent. They, each publish a periodical journal, replete with new and original matter. The stock of materials is exhaustless; and nothing more is required for their continuance than industry and skill on the part of the members and their correspondents and contributors, they both have cabinets, in which the specimens are so methodically arranged, that lucid order pervades the whole, and the student or learner finds them easy and excellent schools of instruction. Even the adept on visiting them can readily find any article that is there, and compare it with its congeners, and find their characters and localities. They may be called the Banks of the several natural sciences which keep the precious capital at home, instead of permitting it to travel abroad never to return.

Museums founded by Individuals.

It would be a blameable omision to pass over in silence, the several establishments for gathering, keeping and showing the objects of natural history. The founder and as I may say, the father of such museums, was the venerable Charles Wilson Peale, of Philadelphia, who was not long since called away at an age more advanced than the greater part of the human species reach. He may be considered as the leader in these kinds of researches; and it is a proof of increasing good sense, that he has had so many followers. His sons, deserve respectful notice for inheriting a full measure of their father's spirit, and labouring to promote the same object in New York and Baltimore as in the other city. They continue to promote the great cause with unabated zeal. The collection founded in New-York by the late zealous and indefatigable John Scudder, is ably managed by the Trustees appointed in his last testament, and constantly on the increase. It is a very extensive repository of natural productions, preserved in superior style and instructively arranged; among these private collections, that of Mr. Trowbridge in Albany, and of Mr. Greenwood in Boston, deserve to be noticed with particular commendation. Those formed and forming at Pittsburgh, Cincinnati, Washington-city, and other places may all be considered as important auxiliaries.

Good Offices of Ship-Masters in the Merchant service.

There is a disposition in the masters of our merchant ships and vessels to aid these researches by improving opportunities to procure specimens, and bringing them home for use. I bestow on this class of our citizens exalted praise for their generous conduct, in ministring to science without the demand of pay. They have in many instances enlarged my sphere of knowledge, and, of course, enabled me to make corresponding communications to others.

The like liberality in the Officers of our Navy.

The like may be said of the commanders and officers of the navy; who in numberless instances have manifested a like desire to promote natural history by carrying home, the minerals, shells, seeds, living and dead animals, productions of art, and in short every worthy thing they could procure, to offer as donations to their friends in the United States. This favourable inclination will be increased by the monitory letter circulated by order of the government,* encouraging them to introduce from foreign parts such seeds, plants, and vegetable productions as promise utility in farming and gardening. The thanks of society is particularly due to the surgeons and their mates.

Voyage of Discovery in the South Atlantic and Pacific.

One of the recent pieces of information touching these matters, is the meditated voyage of discovery

* See N. Y. Far. and Hor. Repository, Vol. 1 Art. 8.

to the Southern Atlantic and Pacific Oceans, under the patronage of the national government. A new world it may be said, has been disclosed in our own time in the region situated to the south east and south of Cape Horn. The English who claim the honour of the discovery have called it New South Shetland. It is wholly destitute of human inhabitants; and is not capable, from its barrenness and cold, of being colonized by man. I have conversed with several inteligent men who have been there; the dreary and inhospitable climate forbids the residence of the inhabitants of the animal world except the family of Phoca, including Seals, Sea Elephants and their congeners. It is reported that this noble project is to be traced to Captain Syms's lectures on the hypothesis of the Earth's hollowness within and its openness at the poles, and his former associate Mr. Reynolds. It would be an unparalelled adventure if the aperture should be found, and the navigators should penetrate the concavity of our planet, and on their return relate the wonders of the internal world, a much more probable result is, that they may coast along from Sandwich land & southern Georgia, to the lands southward, as far as they extend, penetrating as far as possible towards the antartic circle and the pole: and then exploring a course to the Gallapagos, the Marquesas, the Sandwiches, or some other places in the low and productive latitudes for refreshments, previous to returning back. It is certain that the Secretary of the Navy has made a written aplication to the New York Lyceum for such directions and instructions as the members might be enabled to offer and it is quite as certain that an answer has been given by that learned body conformably to the request. As this is the first undertaking of the kind in which our government has been engaged, it may be hoped that it will be the prelude to more of the same kind. The vessel will depart with all the information derived from our countrymen who have been there, from Mr. Purdy's instructive chart, from Capt. Weddel's extended narrative of his voyage, and from other sources of intelligence; should the expidition be fortunate, we may expect a considerable augmentation of knowledge, on various points, particularly navigation, geography, meteorology, mineralogy, geology, and something perhaps, in zoology, in botany there is very little to expect.

Surveys of Coasts and Harbors—Hydrography.

Herein, the labours of Mr. Blunt for the improvement of navigation by exploring and sounding reefs and shoals, and the correct delineation of coasts, are worthy of particular notice. His various publications on these subjects extending from the banks of Bahama, to the shoals of Nantucket, place him high in the list of hydrographers. And mariners generally, and more especially, our coasting seamen own with sensibility, the benefits they have derived from his indefatigable researches and communications.

(*To be continued.*)

ART. 143.—*Important Observations on the preservation of Indian Corn from the Fly and Wevil, in the Corn House.*—[American Farmer.]

Dear Sir; For many years past, I had determined if ever I should build another corn house, it should be double the size necessary for housing my corn in the old way; intending to store it as pulled with the husks on. In the summer of 1827, I built such a house with a door at each end, and in the month of October, from the 7th to the 27th, housed my corn therein from the carts, as it was hawled in with the husks therein. When the mornings were damp, the part then pulled was deposited in the barn for immediate use. Within two or three weeks past I have husked out by an invalid, all that remained of the crop so put away, and find that it has kept to admiration; it comes from the husk glossy and fresh like new corn, and not a layer more imperfect and unsound than would have been had it been husked out at the time of pulling, and then separated in the usual way.

I send you three ears of my last year's crop, numbered 1, 2, and 3. The two ears numbered 1, and 2, were stored in the corn house as above, and lately husked, on examination you will find No. 1 perfectly free from fly holes, not a grain thereof injured; this ear was covered entirely with its husk. No. 2 has the most of its grains towards the small end only, fly eaten as you will observe; this ear was not covered entirely with its husk out to the end thereof, and the part fly eaten exposed. No. 3 is an ear that my manager, it being handsome and speckled, accidentally took from a heap as they were husking for immediate use in the fall of 1827, carried into the house, and put it into his closet where it remained until lately. As we both observed in husking out during the last 2 or 3 weeks, that a good deal of the corn was at the small end fly eaten, and that it was never so in any of the ears accept those not fully protected by the husk, it induced him to bring out and shew me the ear No. 3, now sent, which had been in his closet during the year past. This ear as you see is literally eaten to a honey comb, almost every grain thereof, by the fly.

From the above circumstances I draw the conclusion, that if I had husked out my crop last fall in the usual way, and so housed it, the whole thereof would have been totally ruined by the fly. Such an event did occur to me, as to my crop of corn made in the

year 1826, which was husked out and housed as is generally practised. What remained thereof in the fall of 1827, was scarcely fit to use, from the quantity of fly therein. I am therefore satisfied that the plan of housing corn with its coat on, at any rate one half the crop made, is infinitely superior to the old method; moreover it is less likely to be pilfered.

The fall of 1827, winter and spring of 1827, 1828 were from the great quantity of rain that fell peculiarly unpropitious to my experiment; on examination through the winter of 1827, 1828, the entire mass of husks and corn, for we dug into it, was often found in a giving state, and sometimes heated in a small degree, which alarmed me for its safety, but on the occurrence of a north wester, the husks almost immediately became as cold, crisp and dry as when put into the house.

Some of the husks themselves were lost, perhaps one fourth part, being those got out in the summer time. However, the cows, even then, although well pastured, seemed fond and did eat them heartily, which I ascribed to the nubbins and some ears not completely husked and left among it.

I saved all the husks lately made, and put them in a shed convenient to the cow yard, and shall begin feeding with them. With great respect, yours,

JAMES CARROLL,

Mount Clare, Oct. 3, 1828.

ART. 144—*Remarks on the Cause of Curl in Potatoes*; By a Denbighshire Gardener. [Extracted from Loudon's Gardener's Magazine.]

Sir, Since my last letter, inserted in your Magazine (Vol. III, p. 19.), I have paid much attention to discover the cause of curl in potatoes. I am now convinced that it is occasioned by the depredations of a small worm. In the presence of several witnesses, and at different times, I took up rows of Potatoes; some were curled, others not: on the healthy plants not a worm could be found, but upon every one of the diseased plants I invariably found them. They lodged at the bottom of the stem, which, for an inch or more, is changed from a natural to a pale unhealthy colour: the ascent of the sap is obstructed, and the leaves, not having a due supply, are deformed and diminutive. In examining the cut of the potatoe I discovered a small hole, which probably was the place where the egg had been laid, and where the worm was bred; and, I suppose, as soon as the set became soft, the insect finds its way to the stalk, where its damage is so visible.

If, then, this be the cause of the disease (and I beg to repeat that I have no doubt of it myself), I have now to offer an opinion as to how it happens that potatoes taken up before they are ripe escape the attack, while those which are fully ripe are liable. On this point my own mind is satisfied that it can only arise from the difference in the quality of the sap, contained in a ripe and unripe tuber; the former is preferred, while the latter is rejected, by the parent insect. It is now confirmed by experience, and has become a rule in practice to prefer unripe sets to fully ripe ones, as a preventive where the curl is dreaded; and this I can aver, it has constantly proved in my own practice; and therefore I can confidently recommend its adoption to every cultivator of the potato.

Besides being a security against the curl, the use of unripe sets as I mentioned in a former letter, has an advantage of incalculable value to all who either cultivate potatoes, or to whom they are a necessary of life. To the cottager, to the serving or commercial gardener, and to the agriculturist, the obtaining of a crop *a month or six weeks earlier* is a result of greater importance, and, one would think, only requires to be known, to be universally followed.

At some future opportunity I shall beg to trouble you with some observations on the culture of the strawberry, which may not, I flatter myself, be unworthy of the attention of your readers. I am, Sir, &c.

April 10, 1828. A Denbighshire Gardener.

Note by Mr. Main.—It is near forty years since it was discovered, that a waxy set of a partly ripe potato was less liable to curl than a mealy one. This fact pointed out the propriety of obtaining sets from bleak or moorland districts, where it is necessary to take up the crop before the tubers are thoroughly ripened. This change of seed, as they called it, being attended with success, suggested the idea, and induced the expedient, of taking up the potatoes intended for the next year's sets before they were ripe and hardening them by exposure of the sun and air, to fit them to be stored safely. Many conflicting opinions have been stated respecting the cause of the curl, as well as on the rationality of the means taken to prevent it. Mr. Knight deems the property of mealiness an over-maturity of the plant, and therefore seems to conclude, that a perfectly healthy plant can hardly be expected from a mealy set. Others, with much more reason, have supposed the curl to be an endemical attack, happening in any district a certain number of years after the introduction of the potato, from neglecting to change the kind, or from some atmospherical influence not easily accounted for. The history of the plant shows that the curl is only a local and temporary disease; and many districts formerly subjectto it, as the neighbourhood of London, for instance, are now free from its ravages,

without any care in preparing the sets, or other precaution, save only in an occasional change of seed-sets. If, however, "A Denbighshire Gardener" is correct as to the fact, and there is no reason to suppose the contrary, it may be supposed that the depredators are migratory, no uncommon thing, and his account does not, therefore, militate against the popular history of the disease. It is to be hoped he will continue his observations on this curious circumstance, endeavour to detect the perfect insect, which he may do, by placing a small part of the stem containing the worm under a wine glass, and watching its transformation.

[We know of no vegetable in this country less liable to disease than the potatoe. The stems of early planted ones are sometimes cut off by the black or brown grub, which is so mischievous among cabbage and lettuce plants. But their progress can generally be checked by watching and killing them at the commencement of their depredations. Towards the last of June their voracity is satiated, and they become feeble and inactive, seldom disturbing any of the crops till the succeeding month of May. The statement, however, in the above extract from Loudon's Magazine respecting the benefits to be derived from selecting unripe tubers, may be of much importance to the cultivators of this plant in this country. We know not whether the experiment of planting unripe tubers has been made in the U. States, but from the fact that the attention of that distinguished agriculturist, J. Buel, Esq. of Albany, has been drawn to it, (see N. York Farmer, page 72,) the public may ere long expect to hear the result of an experiment As to the curl, as far as our inquiries extend, it does not exist this side of the Atlantic. *Ed.*]

ART. 145.—*Qualities of Timber, and Vigor, Maturity, and Decay of Trees.*

The qualties of wood depend much on the state of the tree when cut down. It appears, from the experiments of M. Hartig upon wood applied as fuel, that trees which have attained maturity, without passing into decay are the best for the production of heat. Thus, the value of an elm of 100 years is to that of one of 30 years as 12 is to 9; that of an ash of 100 years to one of 30 years as 15 to 11. When the trees begin to decay, their value rapidly diminishes. Thus, if an oak of 200 years yields wood worth 15 francs per cord, a tree of the same kind passing to decay yields wood only worth 12 francs. When the wood is used for other purposes, the advantages conferred by a mature and healthy state are still more considerable. The common elm, growing in a forest, and in good earth, acquires its full increase in 150 years; but it will live many years, even 500 or 600 years. Large forest elms are cut down with advantage when of an age between 100 and 130 years, and then furnish a large quantity of building wood. The duration of the life of the elm depends much on the soil; in a dry soil it becomes aged, as it were, in 4 , 50, or 60 years. Elms which have been lopped live for a shorter period than the others Those that grow by the road side, or in thin plantations, may be cut when 70 or 80 years of age. In general, the increase of hard woods, as the oak and elm, is slow at first; it successively augments until the 20th or 25th year; is then uniform until the age of 60 or 80 years; after which it sensibly diminishes. For these and other reasons, it is important that trees should be cut down when they are in their mature state, and not simply when they undergo no further increase. When the period has arrived after which the increase of the tree would be less and less from year to year, then the tree should be felled, for no advantage accrues from its remaining longer in the ground. The indications of the mature state of a tree are by no means so evident as those of decay; but still certain signs of this state, as well as of the vigorous condition of the tree, may also be observed. (*M. Bandrillar in Bibloth. Phys. Econom.*, 1826, p. 13., and in *Jam. Phil. Jour.*, 1827, p. 191.)

ART. 146.—*A Sketch of the different kinds of Gardens in the United States, particularly those of the Middle and Eastern States.* By WILLIAM WILSON, Nurseryman. Continued from page 224.

Market gardens may be considered as next in point of number and importance. Those that are exclusively appropriated to raising market produce are extensively situated around the environs of commercial cities, and are almost the only portions of American soil that are generally to be found occupied by tenantry. Many of these are gardens leased to men who have been regularly bred to the business of gardening in Europe, and who, after having been employed in the gardens of private gentlemen of this country for a few years, have been enabled to save a portion of their wages sufficient to commence in this way for themselves. And those of them who have been careful in observing the most economical and proper kind of horticultural practice for this country, have generally done well, and are often enabled by degrees to purchase very comfortable places of their own.

Such acquisitons, however, are not to be obtained by the same mode of horticultural practice as that followed in Europe. Those gardeners who commence market-men on their first arrival in this country, generally have a severe contest between their own pride, and, to them, the humiliating adoption of the practice

of Yankees; no one of the whole race, it is presumed, ever dreamed of any necessity of being bound as an apprentice to learn how to raise any thing their soil is capable of producing. And those men of more affluence and taste, who have their places cultivated on a more refined scale, have, we believe, invariably to depend on the services of Europeans; and so far as these men are concerned in the introduction of new and superior kinds of fruit and vegetables, so far do they contribute to the actual increase of the enjoyments and resources of our country: in this respect we believe it is generally acknowledged that they have done, and are still doing a great deal of good. But native Americans, who cultivate the soil either as market gardeners or farmers, are not such blockheads at the business as the pride of Europeans have too often induced them to represent. And he must be no dult of an European gardener who could cross the Atlantic waters and take acre for acre with any of the American market men, and clear dollar for dollar with him from equal quantities of ground. We have no hesitation in giving it as our opinion that unless the European was instructed how to proceed, the American would clear ten dollars for his one. And even with the best instructions he could receive for the first year, he would be very likely to find himself at least one hundred per cent. behind the Yankee in his profits. The vain boasting of many foreigners upon their arrival here, that they can learn nothing in their art from Americans have induced us thus publicly and freely to state the reasons of our disapprobation of such slighting assertions. But the actual conduct of such men proves their own inconsistency. This is a free country, and who hinders them from commencing upon their own superior models. A single instance of the performance of some great practical exploit of these men might make their fortunes, and would be a better ground for undervaluing the abilities of Americans, than boasting in empty words. The truth of it is, that Americans know just as well how to cultivate their soil to the best advantage as Europeans do theirs; nor are they at all insensible of the great advantages which may be obtained from the introduction of many kinds of improvements; but they know that their improvements must progress through that *characteristic* style which is her own, and which operates to the regular aggrandisement of a nation of freemen. No industrious American who knows how to cultivate the soil of his country is under the necessity of becoming the habitual tool of an overgrown landlord, nor does any unjust entails secure to the descendants of spendthrifts a title or a portion that may be forfeited by imprudence. America has no specific nobles: She is *noble* of herself; and the man who cultivates her soil is as eligible as any other to fill her highest offices; her markets are abundantly supplied with the greatest profusion of the very best of vegetables and fruits in season. Little pains has as yet been taken by market gardeners to raise much produce of any kind, out of its ordinary season of coming to perfection in the open air, nor is there much necessity for doing so.

Every family is so abundantly suppled with a long succession, from the natural ground, of the finest varieties of horticultural products, that no appetite short of down right gormandising could crave more. Our winters, it is true, for two or three months, generally check the progress of every vegetable substance; but this, instead of being a misfortune, we absolutely consider an advantage of American climate. What kind of appetite could they possess, who would wish to see our markets constantly stocked with such a variety and profusion as fill them to overflowing during all the summer and fall months?

With a very little care an abundant variety of the very best kinds of vegetables for winter use are easily preserved; and the season soon again returns that brings in a long succession of every kind of vegetable production the heart can wish. Americans are not a people of artificial wants; and unless they see some utility to be derived from the possession of any thing they are not apt to trouble their heads about it. The inhabitants of other countries may choose to have green cucumbers raised in their hot-beds in the month of January. Americans seem to prefer them in their green state in the warm season, and in a pickled state they can eat them in any season at almost as cheap a rate as they can potatoes. Other countries too may glory in a six months gloom of clouds, rains, and fogs with all their exhilarating auxilieries. Americans are contented with a generally unclouded sky; and although their fields be frozen for a short period, like the nether millstone, yet their cellars and markets are generally provided with abundant stores, and at very reasonable prices. The best of winter cabbages can generally be bought, in November, at four dollars per hundred; beets at one dollar per hundred; carrots at seventy five cents, turnips and potatoes from twenty five to thirty seven and a half cents per bushel; onions fifty cents per bushel: parsnips one dollar, and celery three dollars per hundred; cucumbers and peppers, for pickling previous to the first fall frosts, twenty five cents per hundred; kidney beans, for pickling or salting, fifty cents, and Lima beans, to shell and dry for winter use, one dollar per bushel. All the above kinds of vegetables, with several others of less note, are preserved with little trouble for the supply of our tables during the iron bound season of our ice and snow. And if any one is deficient in a full supply of good wholesome vegetables throughout all seasons of the year, it must be his own fault, and not that of the winter.

ART. 147—*On the Stabling and Grooming of Horses.* [From the Encyclopedia of Agriculture.]

The stabling of horses is a most important point in their management, the more so as being wholly a deviation from nature; hence, under the most judicious management it is liable to produce some departure from health, and as some times managed, is most hurtful to it. Clothing, Dressing, or Combing, and exercise, are also highly important.

Every stable should be large, cool and airy. It is too common to suppose that warmth is so congenial to horses, that they cannot be kept too hot; but there is reason to suppose that many of the diseases of horses are attributable to the enervating effects of un natural heat, and of an air breathed and rebreathed over again. Blane says, Is it not alike repugnant to reason and experience, to expect to keep animals in health, that from stables heated to sixty degrees, and further protected by warm clothing, are first stripped; and next exposed to a temperature at the freezing point? If it be argued that habit and exercise render these less hurtful, it will be easy to answer that their original hardihood is lost by confinement and artificial treatment; and that neither does exercise always tend to obviate the effects of this sudden change for our best carriage horses, and hackneys also, have often to wait for hours in roads and streets the convenience of the owners, or the pleasure of the groom.

The heat of a stable should be regulated by a thermometer, and the heat shown by it should never exceed 50° of Fahrenheit in winter, or 62° or 63° in summer. To renew the air the stable should be well ventilated; and which is best done by trunks or tubes passing from the ceiling through the roof.

A stable should not only be well ventilated, but it should be tight also; and the windows should be so constructed as to admit light and air, without making a current of wind on the bodies of the horses. Darkened stables are very hurtful to the eyes; neither do they, as was formerly supposed at Newmarket, tend to the condition or rest of a horse.

A stable should have a close ceiling to keep the dust and dirt from the hay-loft from entering the horses' eyes. It is also necessary to prevent the ammonical gases from ascending and lodging in the hay. It is preferable that the hay-loft be altogether removed from over the stable; and if a very high ceiling even to the roof were substituted, it would be for the benefit of the horses.

The form of the rack and manger should be attended to. Sloping racks are disadvantageous, as encouraging dust in the eyes. They should therefore be upright, and by no means so high as they usually are, by which the head and neck are put injuriously on the stretch. As a proof that this is unpleasant to horses, many of them first pull out all the hay, and then leisurely eat it. The manger should be wide at the bottom, and of a proper height: care should be taken that no splinters are present to endanger the lips, nose, and mouth. The halter reins should, in good stables, be suffered to run within a groove within the manger post, to prevent the rein from entangling the legs.

The stalls of a stable should be wide. Strains in the back, and even worse evils, are the consequence of the standings being too narrow. Bails are objectionable from the ease with which horses can kick over them; and also from the quickest feeder getting the most food, when several horses stand together bailed.

The aclivity of the stalls is a matter of much dispute: when too much raised, as in dealers' stables, they put the back sinews on the stretch, and fatigue horses much. It is more natural that they should be even; or that a very slight slope only be allowed to carry off the urine. The best mode, however, of carrying off the urine, is by means of a small grating to each stall communicating with a cess pool without doors, which should be closed up, that a current of air may not come through the grating. Such a contrivance will effectually carry off the water, and prevent the volatile alkali of the urine from impregnating the air around. For the same reasons the dung should be removed, if possible, wholly without the stable as soon as dropped; for the exhalations from that are also ammonical, and consequently hurtful. To this cause alone, we may attribute many diseases; particularly the great tendency stabled horses have to become affected in the eyes. The pungency of this effluvia is familiar to every one on entering a close stable in the morning, and when the long soiled litter is removed, it is absolutely unbearable.

The litter of horses should be kept dry and sweet, and should be often removed. When it is suffered to remain, under the notion of making better dung, the horse may be ruined; neither does the manure benefit as is supposed; for when it is removed to the dung pit, the close confinement does it more good than the open exposure in the stable, when it parts with its salts, on which its properties as manure partly depend.

Horses should not stand on litter during the day, although very generally suffered to do so. Litter is thought to save the feet, by preventing the uneven surface of the stable from hurting them; but if it holds the urine, it tenders the feet, it heats them also; and is very apt to encourage swelling at the heels: as we know by removing it, when they immediately go down. A little litter may be strewed behind to obviate the effect of kicking, or the splashing of urine in mares.

The cloathing of horses is apt to be carried to as erroneous an extent, as the heat of their stables.—

When horses go out in cold weather, and are intended to have merely a long walking exercise, then clothing is very proper: but it must be evident, that when taken clothed from a stable and exercised briskly so to produce persperation, it is erroneous; for not only are the clothes wetted and thus liable to give cold, but the horse is unfitted to go out afterwards with a saddle only. Saddle horses kept in condition stand clothed in a kersy sheet, and girted with a broad roller, with occasionally the addition of a quarter-piece; the breast-plate is some times put on when going out to exercise; the hood is used to race-horses only, except in case of sickness. All horses, excepting racers, are best without clothing in the summer season.

The grooming or dressing of horses is generally thus practised: having tied up the horse's head, take a curry-comb, and curry him all over his body, to raise the dandriff or scurf, beginning first at his neck, holding the left cheek of the head-stall in your left hand, and curry him from the setting on of his head, all along his neck, to his shoulder, and so go all over his body to the buttocks, down to his hocks; then change your hands, and curry him before on his breast,and laying your right arm over his back, join your right side to his left, and curry him all under his belly to his chest, and so all over very well, from the knees shoulders upwards; after that, go to the far side, and do in like manner. Then take a dead horse's tail ,or a dusting cloth of cotton, and strike that dust away which the comb has raised. Then take a round brush made of bristles, and dress him all over, both head, body and legs, to the very fetlocks, always cleaning the brush from that dust which it gathers, by rubbing it upon the curry comb. After that, take a hair-cloth, and rub him again all over very hard, both to take away the loose hairs, and to help to lay his coat; then wash your hands in fresh water, and rub him all over with wet hands, as well body as head, for that will cleanse away all those hairs and dust the hair-cloth left. Lastly, take a clean cloth, and rub him all over till he be very dry, for that will make his coat smooth and clean. Then take another hair-cloth (for you should have two, one for his body and another for his legs), and rub all his legs exceedingly well, from the knees and hocks downwards to his very hoof, picking and dressing them carefully about the fetlocks from gravel and dust, which will lie in the bending of his joints.

The curry comb should not be too sharp, or, at least not used in a rude and severe manner, so as to be an object of torture and dread, instead of delight and gratification to the horse. It is too often the fate of thin-skined horses to suffer much from heavy handed and ignorant fellows, who do not recollect that the animal is suffering, every time he writhes and attempts to escape from the comb or brush, the same tortures they themselves experience when tickled on the soles of their feet.

The care of the legs and feet forms a most important branch of stable discipline. The legs must be kept perfectly dry, and so clean that not a speck of dirt be suffered to lodge in any crevice under the knee or fetlock, or around the coronet, and withal preserved cool and free from stiffness and inflammation. Dirt suffered to form a lodgement, or wet remaining upon the legs in cold weather, will fret the skin, and cause cracked heels, mallenders and sellenders, rat's-tails, crown-scab, and such a train of stable plagues, as may baffle the most vigorous efforts during a whole winter. From want of care, the best flat-legged horses, whatever may be their condition, will soon become greased. Much care should likewise be taken not to iritate and add to the inflammation of the legs, by harsh rubbing; and if they be moderately bandaged with linen or woolen, which every groom knows how to perform neatly, it will contribute to cleanliness and the general end. Some gallopers are apt to crack the skin of their heels in exercise: in that case, supple the skin occasionally with simple ointment, tho', in general, warm water will be a sufficient preservative. Pains and soreness in the shins and shank-bones are often the consequence of exercise over hard ground in very dry seasons, for which there is no better palliative than frequent warm emollient fomentations. It forms a part of the constant attention of a good horse-keeper, to see that the feet of his horse be well cleaned beneath the shoe with the picker from all small stones or gravel, at every return from abroad. The shoes must be examined, that their ends do not press into the crust, and that the nails be fast, and that the clinches do not rise to cut the horse. In these cases, instant application must be made to the farrier: horses ought by no means to remain in old shoes until the toe is worn away, or the webs become so thin that there is danger of their breaking, unless in case of brittle hoofs, when it is an object to shoe as seldom as possible. Upon the average, good shoes will wear near a month. Steeling the toes is, in general, an useful practice, but less necessary when the best iron is made use of. Where any tendency to dry hoofs exists, the feet should be stopped with equal parts of cow dung, clay, and chamberlye every night, otherwise, twice or three times a week will be sufficient. A still better stopping is made by adding a little tar to the mixture. It is also prudent, when the hoof has any tendency to hardness and contraction, to water the front part of the stall a little; and also occasionally, or constantly, to hang around the hoofs an apparatus, made by doubling a circle of woollen cloth over a tape, which should be tied round the fetlocks loosely: the two segments of the cloth will then fold

around the hoof, and correspond to its shape. This may be dipped in water, and will be found very convenient in keeping the feet moist and cool. Very brittle hoofs are greatly benefited by brushing them over with a mixture of whale oil and tar. It is considered as beneficial, in general, to take off the shoes of a horse who is necessitated to stand long in the stable, and who does no work, and to substitute tips; the growth of the crust, and the enlargement of the heels being thereby promoted.

The care of the furniture and trappings is another part of the duty of a horse-keeper. These are best kept in order by being instantly rubbed clean after use, and placed in a dry situation; by which method neither oil nor scouring paper is often found necessary. Great care should be taken to dry the pads of the saddles after journies, and never to put a hardened and damp saddle upon the horse's back. The same is also necessary with regard to the body clothes. The pads of the saddles ought to be kept perfectly dry and free of dirt and sweat; and after use, should be dried either in the sun or by the fire, and hung in a dry place; the clothes also should be washed much oftener than they generally are, and ever kept perfectly dry, and in a sweet state.

The exercising of horses is essentially necessary for their health, as it counteracts the effects of the artificial life we force upon them. High feeding, heated stables, and unnatural clothing, are, particularly the first, counteracted by proper exercise; and without it horses become pursive, fat, and greased, ; for, when the secretions do not find themselves natural vents by perspiration, &c., they will find themselves artificial ones. Exercise keeps down the fat, and it also hardens and condenses the muscles by drawing their fibres close together; it likewise enlarges the muscles. Thus the appearance as well as the feel, when we handle a horse in condition by proper exercise, is totally different from those of one merely full of flesh by fat, &c. Exercise increases the wind by taking up the useless fat, and by accustoming the lungs to expand themselves.

The quantity of exercise necessary for a horse must be regulated by a variety of circumstances; as age, constitution, condition, and his ordinary work. A young horse requires more exercise than an old one, but it should neither be very long, nor very fatiguing. Some colts are observed to come out of the breaker's hands with splints and spavins, owing to the severe exercise they have undergone. When horses are in general work, a little walking exercise in the morning in body clothes, if the condition be very high, or the weather be very cold, is all that is necessary: but, on days when their common work is not expected to occur, a full fed horse should be exercised twice a day, an hour at each time; or, if only once a day, then an hour and a half or two hours exercise should be given; two thirds of which ought to be passed in walking: the other should be passed in a moderate trot in the hackney, and divided into trotting and galloping in the hunter. The racer has his regular gallops at stated periods; but the exercise of each should always finish with a walk of a sufficient length, to bring the horse in cool, both in person and temper.

ART. 148.—*Climate, and Garden Productions of England and the U. States—Extracts from a communication on Mr. Wilson's Sketch of the Gardens of the U. States*; By Thomas Bridgeman.

Mr. Editor, I have been a constant reader of your print, in which I see much to admire and some to blame. If I understand the character of your work, the object is to promote the interest of the farmer and to encourage emulation in the art of horticulture. In the 9th number of your Repository, Article 134, page 201, your correspondent, Mr. Wilson, makes a comparison between the gardens of England and of this country, manifestly to the prejudice of the former. To support this hypothesis, he has the effrontery to insinuate, that the luxuries of the garden in England are confined to the rich and the great. He grounds his argument on what he says Mr. Loudon recommends the cottager to cultivate in his garden, as though the cottagers were to be limited in the products of their gardens by a writer on horticulture.

It is well known, that in consequence of the extreme heat of our summers, we are unable to raise many wholesome vegetables, which the English possess in abundance. It is also well known, that for four or five months in winter, we have no gardens at all in this part of America; whilst in England, the gardens are under cultivation the whole of the year; here, in the spring, people are searching the fields for dock-leaves, shepherd's-purse, lamb's-quarters, and dandelions, while the cottager in England can be supplied from his garden with brocoli, spring-cabbage, borecol, colewort &c.; and it is well known that before we begin to turn over the soil, the markets of England are plentifully supplied with Spring produce; and amongst other garden luxuries, white and purple brocoli may be bought at about the same price that we sell our cabbage. I think it will not be disputed by any of your readers that brocoli and cauliflower are among the greatest luxuries of the garden; these all grow to great perfection in England, and are quite plentiful the greater part of the year. But as your correspondent will not be satisfied with my bare assertion, I shall have occasion to refer to a celebrated English author. John Abercrombie, in page 651 of his works, 17th London edition, decribes many

kinds of brocoli that are not much known in this part of our country, he says, "they are plants of the Brassica or Cabbage tribe; not cabbaging, but producing a compact central head, formed of the advancing seed buds and flowers in the manner of cauliflower; most excellent eating, acquiring useful growth for the table by the latter end of autumn and in the winter, and in superior perfection in the spring, in large full heads consisting of several varieties, viz.; 1 Early dwarf purple, 2 Early green, 3 Large late purple, 4 Dwarf late purple, 5 Branching purple, 6 Late green, 7 Brown, 8 White or Cauliflower Brocoli, of great similiarity to a cauliflower, and scarcely inferior for eating". All these kinds can be raised without artificial heat, and with as little trouble as cabbages, consequently must be within the reach of the Cottagers. The same author treats of cauliflower, which, he says, page 155, "may be obtained in Summer and Winter, from May to June until December, consisting of two varieties", besides these there are three varieties of Cape brocoli, which grow there to great perfection, large white, sulphur, and purple. Asparagus and Savoy cabbage, scarce in this country, says Mr. W., are quite plentiful in all parts of England: and numerous varieties of cabbage, colewort, brocoli, turnips, lettuces, radishes, together with artichokes, beets, carrots, cardoons, celery, cresses, capsicums, corn salad, cucumbers, endive, garlick, horse-radish spinach, leeks, nasturtium, onions, parsnips, parsley, peas, pumpkins, potatoes, squashies, sorrel, salsify, shallots, tomatoes, &c.; "no other care being necessary for the production of the above list of delicious vegetables, than the labouring of the ground, either by the spade or plough, putting in the seeds at their proper seasons, and keeping the whole neat and clear of weeds": the cottager in England need not be without them; but as your correspondent contends that what he calls garden luxuries, the far greater portion of the inhabitants of England can never afford to taste of, because they are not brought to perfection without artificial heat, I shall endeavour to convince him to the contrary, by extracts from the work before alluded to. With respect to Indian corn, I could refer him, if it were necessary, to a person in this city who raised some in England thirty years ago: and Mr. Wilson's friend Cobbett will soon convince him of the success of his eleven acres, planted at Barn Elms this year. It is stated to be in a likely way to get ripe, notwithstanding the unfavorableness of the summer; still it is doubtful if he get the people to use it as a vegetable or even for bread-stuff, until they become more acquainted with it. The same may be said of beets, squashes, and pumpkins, which are in so much esteem here. With respect to pumpkins and squashies, I can truly say, that I have often seen them kicked about the streets in England, they not being considered as of any value: In the ancient town of Abingdon in Berkshire, it has been customary from time immemorial on the first sunday the new Mayor goes to church, for the inhabitants to decorate the fronts of their houses with boughs and flowers, from the mayor's house to the church. On this great occasion I have seen hundreds of pumpkins, squashes, and other gourds suspended by different coloured ribbands, and, after they were done with, left to the mercy of the populace. If the reader will take the pains to peruse Abercrombie's works, he will find that some of the kinds of Squashes in so much esteem here, are described in his list of gourds:—page 267, he says, of gourds and pumpkins, "as the fruit of this plant is not of much estimation, or value for any material culinary uses, or other economical purposes, the gardener should only raise a few, where any are required, either for any domestic occasions, both in the quite young growth of the fruit, and when of full maturity, or some chiefly by way of curiosity"; and in page 268, he says, "that in default of dung or glasses the gardener may plant any of the gourd kinds or others in the full ground, towards the middle of May, and the pumpkins &c. may be planted any where." One of your correspondents has already proved, by his quotation from Loudon, article 131 page191, that squashes will grow in England, but are not considered as an article of food. With respect to cucumbers, I can say, from personal experience, that, in England, a few hills will keep in bearing so as to supply a family, with as many as they may require for the season; Abercrombie says, page 657, that the cucumber is a most tender annual plant, of long trailling growth, noted for its abundant growth of fruit, and its long continuance in spring summer and autumn;—obtained by aid of hot beds in its early spring and summer culture till June; will then stand the full air, and may also then be sowed or planted in the *natural ground*, to produce fruit in August, and September; the same author says with regard to melons, that they require artificial heat in the spring; but lest my opponent exult at this concession, I would remind him that we gardeners about New York, have to make hot-beds in order to raise early cabbages, and lettuce. Therefore, if the people of England were as fond of melons as he appears to be of the squash, they may easily obtain them, though, I think it will be granted by every candid person, that the water melon, in particular, is not so much to be desired in that temperate climate, as in our hot summers.

As a substitute for the Lima Bean which is the last of Mr. Wilson's garden luxuries, I would recommend those beans he calls horse-beans; whilst that liberal and enlightened American author, Bernard Mc Mahon of Philadelphia calls them Garden Beans, and recommends them for cultivation in this

country ; in page 580 he enumerates 14 kinds viz. , 1 early Mazagan, 2 early Lisbon, 3 long podded, 4 common field, 5 dwarf cluster, 6 white blossom, 7 red blossom, 8 large window, 9 large toker, 10 brond Spanish, 11 Mumford, 12 Green nonpareil, 13 Turkey long pod, 14 green Genoa : to these may be added four other kinds from Abercrombie's list ; sword long pod (of superior length and size of pod), Sandwich bean, Kentish Windsor, and Taylor's Windsor. Mr. M' Mahon observes, in speaking of some of the above kinds, which are quite plentiful all over England,and "the only esculent vegetable" says Mr Wilson in his Economy of the Kitchen Garden, "in the known world that refuses to yield an abundant produce in America," that they are much esteemed for their great size and sweetness.

I have already proved that there are many kinds of vegetables cultivated throughout Great Britain, Ireland, and Scotland, that refuse to yield an abundant produce in this part of our country. Mr. Mc'Mahon recommends his fellow citizens to introduce all kinds of wholesome vegetables into our gardens ; in page 191, in treating of the sea kale, he says, the Crambe maritima, or sea kale is yet very little known in the United States, though a most excellent garden vegetable and highly deserving of cultivation ; page 192 he says, that this garden luxury is better known in England, than in any other part of Europe ; it is in that country only that its value is rightly appreciated, and its culture carefully attended to ; he further states that on many parts of the sea coasts of England, es pocially of Devonshire, Dorsetshire, and Sussex, the inhabitants from time immemorial have been in the practice of procuring it for their tables, preferring it to all other greens ; he says, the more curious have introduced it into their gardens, and that in some parts of England, there is scarcely a garden to be found without it ; he farther states, that, "it is also cultivated for sale in various parts of England", consequently it cannot be confined to the rich & great ; but there is another garden Luxury in great esteem in England I mean the Artichoke. Abercrombie mentions 3 kinds. In page 649 he says it is "a plant of the perennial tribe, producing from the root annually its squamose heads in full growth in June or July and August until October and November comprising two varieties, viz. 1 globe artichoke, 2 green oval or French ; both sorts will produce heads from the roots in several years" ; there is another kind of the helianthus or sun flower tribe which our author says is a native of America ; but this is not the delicious vegetable known in England by the term artichoke. The last vegetable I shall mention as much esteemed both here and in England, and is called salsify ; it grows spontaneously in the open fields in England, and is cultivated in some gardens on both sides the Atlantic : Mr. McMahon, after recommending its cultivation, says, " it is a plant by some highly valued for its white eatable root, and that some have carried their fondness for it so far as to call it Vegetable-Oyster", it is more generally known among the common people of England by the term Hocumpocum.

Methinks many of your juvenile readers are ready before this to enquire, who he can be that is thus endeavouring to persuade them that the inhabitants of England enjoy more of the garden luxuries than freemen in their native country ; for the sake of such I would state that, I am a native of that great country, and I trust, the candid reader will excuse me, if I remind him, that, it is the land of our forefathers, a country, the history of which they ought to be familiarly acquainted with, and that notwithstanding we are now distinguished as a separate nation, we are all of one blood, and I am of opin on, that all things considered, we need not regret that this was once a British colony.

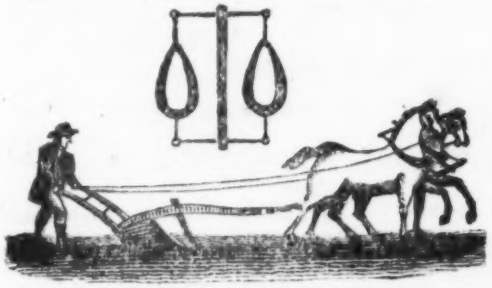
If I may be allowed to compare this my adopted country with those countries colonized by other powers of Europe, it will appear at once that we derive some advantage from the circumstance above alluded to, but I must leave this subject, and endeavour to silence those *rude boys* who, methinks by this time, are ready to pelt me with water melons, a luxury, at which Mr. Wilson says, "the inhabitants of Cobbet's pre-eminent country, may lick their lips, and that the boys are mightily fond of, and that the very chimney sweeps feast abundantly upon these luxuries, which in England, are actually considered as first rate dainties for Lords and Kings". Methinks some of the good little boys of America on reading this are ready to pity their little cousins and kindred in England, and would enquire if there is any fruit in that country? for the sake of such, I would state, that whilst we have reason to be thankful for the delicious fruits and vegetables of the temperate zone, many of which we have in abundance, the people of England enjoy the same luxuaies, and of many in *greater* abundance, such as goosberries, currants, cherries, apples, pears, nectarines, appricots, plumbs, grapes, mulberries, raspberries, strawberries, &c. &c. ; but the reader will think by this time, I ought to close this subject. I shall take my leave for the present, after assuring your readers, that it would afford me the greatest possible happiness, if I should be able on the approach of spring to exhibit to them a sample of plants of the flowering tribe, natives of England, but justly esteemed and considered by lovers of flowers, as worthy a place in American flower gardens. In making the above remarkes, Mr. Editor, I have no other object in view, but the development of truth, and I have not been able to do this, without making some comparisons between the two countries ; the fact is, there is a difference of climate, & each is con-

sequently better adapted to the production of some vegetables than the other; but I must candidly say, that I am of opinion, that the climate of England is most congenial to the production of useful vegetables in the open air; and as to garden luxuries, they can be raised there with as little trouble as early cabbage can here. Yours most respectfully,

New-York, Oct. 1828. THOMAS BRIDGEMAN.

[We are by no means unwilling to have a portion of our pages occupied with this controversy, as long as it serves to develope truth, and bring forward information interesting to the generality of our readers. We would request our obliging correspondents to use *converging* arguments that all the light thrown on the subject may be brought to a focus. To determine this matter, it may be necessary to ascertain the number of indigenous plants of the two countries, at what latitudes the same vegetables will grow in Europe and America, and other circumstances affecting the physical distribution of plants in the two countries including elevation, moisture, geological nature of the soil, light, &c.]

ART. 143.—*Allen's Patent Horse Yoke.*



This yoke is composed of three straight pieces of wood bolted together. The yoke is connected with the top and bottom of the hames by straps, as delineated in the diagram above. The draught is applied to the middle bar between the horses, and there is but one point of connection between the yoke and vehicle, and that being at the end of the tongue, it may at any instant be disengaged.

The relative merits of this harness, contrasted with the one in common use, will, with reflecting and impartial persons, result in a decided preference of the yoke.

The following objections may with the strictest propriety be urged against the common harness:

1st. The full force of the resisting power of the load is exerted upon the point of the shoulder that is advancing, which necessarily impedes in a very great degree the motion of the shoulder.

2nd. The line of draught is oblique from the point of the horses shoulder in advance, to the centre of the whippletree, alternating at every step, and tends to throw the horses' stern out of the line of motion

3d. The trace chains irritate the horses' sides, compress the chest, obstruct respiration, are dangling about their legs, fretting and galling them, and in wheeling are troublesome in the extreme.

4th. The whippletrees are rather a perplexing appendage, attaching themselves to stumps, stones fences, fruit trees, and every thing within their range. All of these inconveniences are obviated by this horse yoke.

1st. The hame acts upon a pivot at top and bottom, bearing equally on both shoulders of the horses and acts like a lever upon the shoulder at rest, giving a free and unimpeded motion to the moving shoulder, by reason of which the load is propelled with greater ease.

2nd. The line of draught is in exact accordance with the line of motion, both being through the center of the horse, he moves in a direct and unwavering line.

3d. There is but one chain which extends from the yoke to the load; there is nothing to gall and fret the horses; they are perfectly free, can wheel and manœuvre with great facility.

4th. Whippletrees, are not used at all. Hence it follows that the yoke is cheaper, horses work in it much easier, and they are divested of the entanging and, perplexing effects attending the common harness.

ADOLPHUS ALLEN.

Troy, Bradford county, Pa.

ART. 150.—*The Cultivation of Lettuce in winter.* By WILLIAM CURR. [Addressed to the Editor of the N. Y. Farmer and Hor. Repository.]

I have observed in the columns of your very useful publication, the commencement of the developement of much useful information respecting our horticultural productions; and I anticipate much good to accrue to the community from the continuation of your laudable undertaking. From the want of a proper channel, through which the nature and state of our horticultural practice could be conveyed, the most unfavorable apprehensions have been entertained of the practicability of our ever being able to arrive to any degree of eminence in this useful pursuit. But correct information of the knowledge and facilities which we have acquired in the practice of horticulture, can perhaps be best obtained by plain statements of the actual practice of operative men. Under this impression I venture to send you a few observations on the cultivation of lettuce in winter, which, should you think worthy of a place in your paper, they are at your disposal.

Lettuce during the winter months, being rather con-

sidered as a luxury is less in demand in our markets than many other kinds of vegetables, but a constant supply of it can be easily obtained in a state of great perfection during our most severe frosts, by cultivating it in frames, either placed upon the natural ground or upon moderate hot-beds of stable dung.—Our cold winds sometimes renders it necessary to use a considerable quantity of covering to exclude their effects, but in the very depths of winter, there is almost constant continuation of a pure air and unclouded sky.

In short, there is perhaps no country better calculated for carrying on all the artificial means of horticulture than this. In order to have a regular supply of good head lettuce in November, I sow some seed of the white Dutch cabbage lettuce about the 10th of August. The plants from this sowing, get a good size for table towards the last of October, and continue good with slight occasional covering, until the beginning of December. For the supply of this and the ensuing months of January and February, I sow about the 10th of September, seed of the White Dutch, Simpson's Selisias, and the Butter or Lazey Lettuce. My hot-bed frames for this sowing, are ranged on a dry, warm sheltered border, upon the natural soil, well enriched and in good order to receive the plants from the seed bed, which I set out in these frames, about the first of October, nearly six inches apart—they soon take root, and about the last of November the White Dutch begins to have good large heads, which continue in fine order for cutting, till New Year, when the fine tender Simpson sort comes in, in good order, and continues so for two months, or until March, when the Butter or Lazey sort begin to present their fine tender cabbage heads, which continue in good order all the spring, or until a plentiful supply can be obtained from early crops set out in the open borders, &c. Nothing is more simple or easily accomplished, than the management of these lettuce beds, the outside of the frames being secured from all weathers with substantial linings of horse dung—the sashes at night and in stormy days, are covered with mats or straw and boards, and in cases of severe frost an additional covering is put above these, of salt hay, straw or long litter. Having nothing to fear in all ordinary seasons, from rains, damps, fogs or mildews the management of all kinds of framing, either on cold or hot-beds, affords a pleasant recreation to the practical and industrious gardener. In addition to the supply of lettuce which I cultivate in cold frames, I continue during all the winter season, a more rapid succession of crops, which I cultivate upon bottom heat—these hot-beds I form in pits, dug out of my dry soil, to the depth of eighteen inches and the exact size and extent of my frames—they are formed of stable dung, prepared and made up in the usual way, the frames are placed over them and filled with five inches of rich earth, and the plants set at the same distance as in the cold frames; the outside of the frames well lined with hot dung; from these frames thus managed, I cut two or three fine crops of head lettuce during the winter and early spring season. Some of these hot-beds I occasionally employ for raising early cabbage plants—in such cases, I sow about the last of February; but this practice is by no means necessary, as the best and earliest cabbages always grow from plants sowed in the open ground in the fall, and preserved in cold beds during winter. Much of the success of all these winter crops, both in cold and hot-beds, depends upon a careful attention in uncovering the glass and admitting as much free air by tilting or running down the sashes, as can be done with safety in all days of sunshine, which however cold, compose the far greatest proportion through all our winter months, and as observed before, affords such advantages in every department of forcing gardening In the hope that some of your more experienced correspondents will in some future number enter farther into the nature and uses of our winter cultivation of vegetables, should it only be the squash or pumpkin,

I remain, sir, with the highest respect, yours, &c.

WILLIAM CURR.

New-York, October, 1828.

ART. 151.—*Proceedings of the New-York Horticultural Society.*

October 7.—Mr. Smith presented three remarkably fine bunches of Hamburg Grapes, wg. 1 bunch, 17 oz. 1 do. 14 1-2.

Mr. Floy, 3 heads of Imperial Cabbage, 1 head wg. 10 lb. 12 oz. 18 do. wg. 9 lb. 12 oz. 1 do. 11 lb. 4 oz. Seed sown 10th May—Cabbages cut more than a month ago.

Mr. Curr, 6 heads Celery, wg. 10 lb. 3 do. wg. 4 lb. 4 oz. blanched 17 inches.

Mr. Floy, a basket of Bishop's early Peas, (dwarf early, prolific.) Seed received from the London Horticultural Society. Ripe middle of July; sowed again last week of July. Also, some very beautiful *Dahlias*, semi-double and bright scarlet.

Mr. Hogg, a sample of beautiful Balsamines and Flowers of the Aralia racemosa, Rudbeckia purpurea, Œnothera undulata, Lantana camara, Corchorus (Kerria) japonicus, Hysalis alkekenji, Delphinium chinense, Asclepias linearis, Salvia splendens.

October 14.—Mr. Oakley exhibited from the garden of Alderman Peters, a remarkable Peach of the Heath cling, perfectly ripe, measuring 10 1-4 inches in circumference and weighing 9 oz. raised by Mr. Peters.

Mr. Aymar presented two bunches of Red Madeira Grapes from his garden, large and fine, weighing together 1 lb. 10 oz.

Mr. Cooper exhibited from the garden of Mr. Joseph Blane, in Philadelphia, three remarkable bunches of Grapes for size and flavor. They were raised from the seeds of the Malaga grape, and were pronounced to be equal to any ever imported from Malaga.

Mr. Halsey exhibited a specimen of *Lilac* in full flower, grown on Long Island--also some beautiful *Dahlias*, from Mr. Parmentier's garden.

October 21.—Mr. Aymar exhibited two fine Pine Apple Quinces, produced from his garden.

Mr. Stull presented 12 heads of curled Sicchory, well blanched and in good order for the table.

Mr. Smith, some fine St. Germain Pears.

October 28.—Mr. Parmentier, from his gardenn at Brooklyn, presented some monthly Strawberries and a specimen of Cabbage, which he calls *Chou Frise du nord*, being much used in the north of Europe. It withstands greater degrees of cold than other sorts: does not head, grows to the height of 5 or 6 feet and is quite ornamental from the beauty of its fringed leaves. It is also recommended for its good qualities as food for cattle.

Dr. Hosack exhibited an Apple of extraordinary size, which he had accidentally met with without knowing where it was produced or other circumstances respecting it. It was apparently a fall pippin, of straw color, 14 3-4 inches in circumference, wg 22 oz.

Mr. Hogg exhibited two heads of Brocoli, one of which weighed 2 lbs. 4 oz. and the other 2 lbs. 11 1-2 oz.

Mr. Wilson, 2 heads of Broccoli, one weighing 2 lbs. 6 oz. and the other 2 lbs.

ART. 152.—*Long Anglo-Marino Wool.*

The British Society for the encouragement of arts, manufactures and commerce, have awarded a premium to Charles Callis Western, Esq. M. P. for a specimen of long fine Anglo-Merino Wool.

In a communication to the Society, Mr. Western thus describes a sample of this wool:—"The wool will be of three year's growth next clipping time; I took it off this morning from the backs of two wether sheep. I drew it from the sein with quite as much difficulty, as if it had been of one years, growth, and with as much pain to the animals. You will observe the strength and elasticity of the wool, and the impossibility of discovering any difference in each successive year's growth. I estimate the weight of one fleece at 25lbs.; the one at 28 or 30lbs in the grease.

The food of the sheep has been according to the season, tares, and clover, green grass, hay, turnips, mangel-wurtzel, and oats. Weight of the sheep alive, 239 lbs.; another 244lbs.; dead one 158] lbs. the other 149.

I am more and more convinced, I am right in the object at which I aim, that of growing long, fine, strong, Merino wool for combing. I am satisfied it is praticable, that the farmer who applies his attention and skill to this subject, will find an adequate return in the sale of wool and mutton.

Mr. Western says in a susequent communication; "The principal object that I had in view was to make known the curious fact. that the animal (Anglo-Merino sheep) will carry its fleece in all strength and beauty three years. I have produced the article such as was never seen or contemplated before, most people supposing that sheep shed their fleece every year.

I do not propose the wool should be more than two years' growth which would require one year's cutting. The sheep should be wethers, and put up at about 16 or 18 months old."

ART. 153.—*The expenses of Education defrayed by Manual Labor—Rensellaer School at Troy—Report of the Trustees of Oneida Academy, at Utica, New-York.*

In Art. 54, No. 3, of the N. Y. Farmer, Professor Eaton of Troy, has the following observation: "I have tested by numerous trials, the *laboring plan of education, and I do not believe that it ever did, or ever will succeed.*" In our remarks on Mr. Eaton's communication, we observed, "It is our full opinion that the day is not far distant, when numerous and successful experiments will prove to the enlightened world, that every youth of six years of age, put as an apprentice to a regularly organized school of industry until he is eighteen, will be able, by his own labor, to feed, to clothe and to educate himself. We already see, in the revolution of a few years only, institutions rising in every part of our country, where youth will alternately recreate themselves with mental and bodily exercise—where the certainty of receiving a full compensation for the product of their labor, will animate and stimulate them to exertion—where the natural and pleasing presentation of the objects of investigation, will produce a love of knowledge that will never fail to result in a high degree of mental cultivation, and increase the capacity of the mind for rational enjoyment." Further reflection has confirmed us in our opinion, and further information has given us assurances that our anticipations will be realized.

Professor Eaton is unquestionably aware, in his long and successful cultivation of the natural sciences that many principles are now established as true, of

the contrary of which the *trials* and dogmas of philosophers had long held in sway the faith of the world. He is also aware that some men are much more successful experimenters than others, or rather, (that he may not suppose we question his general skill) that all are not equally fortunate in every subject of investigation. We believe Mr. Eaton's school is defective in the main thing to make "the laboring plan of education" successful. There is nothing to stimulate the students to exertion, the lever to human power, necessity—and the great exciting motive of human effort, interest, or the hope of gain, never moved his students nor animated their breasts.

It requires no great knowledge of the secret springs of human action, to be able to say, that the young men of that institution, the expenses of whose board and education were defrayed by their parents or guardians, would not enter the field or shop of labor with all that ardor, and subject themselves to all that persevering toil, which are necessary for a thorough and practically useful acquaintance with husbandry or mechanical trades. It is not surprising that they, thus provided for, should prefer "to *inspect* the various operations" in the neighboring shops. Neither is it at all surprising that for "the agricultural instruction" given to the pupils, and for "the *damage* or *inconvenience* suffered from the school," the tenants of the allotted farms of Mr. Van Renssellaer's manor, should receive "deductions from their rents."—Let it not be supposed that we are casting reflections on Mr. Eaton's school—on the contrary, we have no doubt that the farms "are visited very profitably" by the students, and that they, in frequenting the mechanical shops of the neighboring villagers, "are always delighted to see the applications of the experimental sciences to the useful arts," and that "much zeal in the cause of science," is excited. The plan of the Renssellaer school for advancing students in the sciences that are more intimately connected with the useful callings of life is far superior to most institutions of our country, and highly creditable to the conception of the venerable patriot and distinguished benefactor who originated it and founded the institution. We have visited the school, cursorily examined the details of instruction, heard the Professor apply his geological instructions to agriculture, and attended a lecture on chemistry given to the mechanics of Troy by one of the pupils. With all we were highly pleased, and had our opinion of the great utility of such schools, much strengthened. One thing we would remark, did not brighten our eye—the enclosures around the building, were deficient in neatness and tastely rural attractions. We mention this subject because we deem a taste for rural refinement of great importance in the education of young men designed for agriculturists. Solid attainments, like a good share of common sterling sense, impart worth and give weight to the possessors; yet for mental refinement, social pleasures and domestic happiness, a taste for the order and beauties of nature, is to a young man more than what polish is to marble or steel.

Did our limits permit, we would give in full the plan of this excellent institution; but our principal object in these remarks is, to suggest the idea that, for the success and general utility of laboring schools, they must be conducted on the principle of *compensating the pupils for their labor*—having them bound as apprentices to learn the trade or calling which they expect to follow. Institutions conducted on this principle, are what the age requires, and such as are particularly adapted to the wants of our country. The practice of bringing up youth to be idle school boys until they are ten, twelve or fifteen years of age, and then putting them to trades until they are twenty one, is a woful waste of man's short life, and a species of mental and bodily servitude, that immemorial custom alone has rendered supportable.

Without entering into any particulars of the regulation and management of an institution for the union of mental and bodily labor, we will barely make a supposition, that a child to have spent two or three years in an Infant School, and as many in the juvenile departments of a High School, and at the age of ten or twelve, to be sent to a School of Industry, bound as an apprentice until he is eighteen years of age, under the conditions of daily spending four or six hours in acquiring an education, and the remaining eight or six in mechanical or agricultural labor. We would suppose he be allowed a fixed price for his work, and it be a condition of his indenture, that he obtains his freedom when eighteen, provided his wages equal the expenses of his board and tuition, otherwise that he pay in money or by longer service. On the supposition that he be put at the printing business, we will make some calculations to show that he will be able to defray the expenses attending his education.

The usual wages of a journeyman are eight dollars per week. It is a calculation within bounds to suppose that a boy ten or twelve years of age, would earn, until he was eighteen, two-thirds as much as a journeyman—and that he would, at a School of Industry, be able to work two-thirds of the usual number of hours. He would thus earn $3 55 per week, amounting to $184 60 in a year. And now putting board at $2 per week and his tuition at $5 per quarter, the sum will be $124 in a year, leaving him 60, 60, more than sufficient for his board and tuition.—Taking the subject in all its bearings, this calculation is no more favorable to the laboring student, than the results of a well organized school of industry, will, ere long, afford a demonstration.

We would now beg leave briefly to call the attention of our readers to the good effects of this plan. Under the false impression that boys from eight to fifteen years of age, are able to learn little or n thing, and aware that five or six years are amply sufficient to learn a trade, the generality of parents accustom their sons to no other employment but that of long and dull school hours, and thousands not even to this. The consequences are, that idleness and perhaps vice becomes habitual. With minds unmatured and uncultivated, they are at the age of fifteen or sixteen, put to a trade. Now they are required to devote ten or twelve hours of each day to the drudgery and toil of their business. Strangers to industry, with feelings repugnant to labor, they find little to cheer them but the prospect of rest when their day's labor is done, and the more distant one when their term of service shall have expired; and happy if they do not acquire such a disgust for their business, as to form the early resolution of learning no more than is absolutely necessary, and of abandoning it when their day of freedom shall come. Thus wasting the prime of life, and at the age of twenty-one, without any fixed purpose, casting themselves on the ocean of this troublesome world.

But on the plan we are recommending, none of these evils are experienced. The alternate employment in study and labor, serves as recreation, and is adapted to the state of both the mind and body of youth. The cultivation and developement of the mental powers, keep pace with the growth and vigor of the body—just the reverse of the present custom. The necessity of defraying their own expenses, will ever be a spur to their industry, leading them to acquire a knowledge of every facility for progress in their pursuit, and the adaptation and application of their studies to the nature of their employment, cannot fail of attaching them to their trade, producing a love for science and making them perfect masters of their business—thus confirming with their growth, habits of industry, laying a broad foundation for a respectable sphere of action, and rendering them certain of a full share of the happiness of human allotment.

With pleasure would we dwell longer on this subject, but must request our readers to call in the aid of their imaginations to supply the deficiencies of our limited columns.

The following extract from the report of the trustees of Oneida Academy, exhibits a happy experiment and a decided confirmation of our opinion—an experiment to which we recommend the attention of our readers, particularly of Professor Eaton:

"At a meeting of the Trustees of Oneida Academy, at Utica, December, 1827, the Instructors made the following report:—

"The Academy was opened for the reception of students the second week in May, and closed the first of December. Within this time, twenty-seven young men have been at the Institution. The ordinary number, however, has been about twenty. More this season could not be accommodated. All except four are professors of religion, and most of them have the ministry in view.

"The labor performed by the students has been, upon an average, three and a half hours per day.—This is the only compensation which has been received for board and washing. The charge for tuition has been fifty cents per week, or $20 per year. The labor has generally been stated, and between four and six in the morning, and in the afternoon. That students might be interrupted as little as possible, a laborer has been constantly employed. The students have boarded with one of the Instructors.—About forty acres of land have been cultivated—two for a garden, and the remainder for corn, potatoes, &c. Twenty acres have been mown. Between forty and fifty cords of wood have been chopped, fifty barrels of cider made, and other work necessary on the farm.

"The quantity of produce raised, as nearly as can be ascertained without actual measurement, is as follows: Corn, 700 bushels; potatoes, 400; onions, 80; oats, 100; beans, 25; barley, 10; hay, 30 tons.

"The income of the farm, notwithstanding many disadvantages attending the commencement of the undertaking, has exceeded the expenses of boarding the students, keeping of stock, hire in the house, and the hire of a laborer for a year, about $150. It is, therefore, an ascertained fact, that a student may defray the expenses of his board by three and a half hours labor, and without interfering with his studies.

"Gardening may be introduced to any extent, in future, that the market will warrant, which will be an agreeable as well as profitable employment. Mechanical business may also be introduced; and thus employment may be furnished for as many students as it is desirable to have in one school.

"As it has been doubted by some, whether students would labor willingly and faithfully, the Trustees would remark, that they have found very little difficulty on this point. All kinds of business on the farm have been performed cheerfully. The labor has been viewed rather as a recreation than a task. It has evidently been conducive to health. The time spent in labor has been no hindrance to their studies. They have not only had as many hours for study, as at other institutions; but the exercise has enabled them to study to better advantage. We have never seen young men make better proficiency than they generally have made. Their deportment, in a moral point

of view, has been such as to merit the esteem of their teachers.

We have only to add, that great inconvenience has been experienced through every department of the Institution, for want of suitable buildings. It is highly necessary for the success of the school, as well as for the accommodation of the numerous applicants, that buildings should be erected as speedily as possible.

"Young men will labor, if the practice is general among their fellow-students, and they receive the profits of their industry. The experiment here and elsewhere, has proved this; and the practice is gaining ground. An association of young men at the Theological Seminary at Andover, have adopted a "*regular system of mechanical labor*," for the purpose of exercise."

The trustees have very recently been taking measures to raise funds for the necessary buildings. Besides the experiments at this institution, various others have been made and are now making in different parts of our country. At Andover, Mass. Gardiner Lyceum in Maine, at Whitesboro' in N. York, at Maryville, Tennessee—in N. Jersey and Pennsylvania, (see N. Y. Farmer, page 45.) In addition to these, an individual has, we understand, offered *ten thousand dollars* for the establishment of a practical seminary, for the cultivation of the various branches of agricultural and mechanical science, to be located in the central part of Massachusetts, and to be under the supervision of the American Lyceum. The institution is expected to go into operation the ensuing spring, and to embrace work shops, gardens, &c. on the most improved models.

ART. 154.—*Improved American Sheep.* By the EDITOR.

Considerable sums of money are annually sent from this country for the purchase of *improved European* breeds of domestic animals, particularly of sheep. This practice of our enlightened and liberal farmers is highly commendable; and among its good effects, will be, without doubt, that important one of bringing forward *improved American* breeds. Indeed, distinguished gentlemen in different parts of our country, have already been successful to a degree, creditable to themselves, and beneficial to their country. Among these is Mr. R. K. Meade of White Post, Virginia, who has made propositions to the farmers of that state, "to set aside a flock under a particular appelation as a full blooded original stock,"—He thus speaks of his breed.

"As there is happily a growing taste and curiosity amongst our farmers, it may not be amiss to state that these sheep are composed of—first, the remnant of an English breed imported before the revolution, (and highly celebrated in their day for their mutton qualities,) crossed by the Arlington long wool, improved by Mr. Custis from the Persian stock of Mount Vernon; at this period 124 sheep averaged 8 1-2 lbs. of wool too long for ordinary purposes, the best sample of which was sent by Mr. Custis of Arlington to Doctor Logan of Philadelphia, measuring 16 inches in length; was next crossed by the large French and small Spanish merino, until too great a sacrifice of quantity was made for fine wool during the well remembered merino mania. Most fortunately, some of the progeny of that remarkable sheep exhibited at Friendly Grove, called Frederick Bakewell, (the premium ram,) and weighing more than 200 pounds, were employed to restore the lost mutton and wool. From that time to the present period, an in-and-in system has been strictly pursued: many of the finest ram lambs have been saved every year, in order to afford the best selection, with the view of combining the important properties of quantity and quality of wool, size, and early maturity of mutton.

"The ewes he offers for sale are a portion of a flock, the best average of which, in the last three years, has been equal to 8 3-8 lbs.; individuals having sheared from 11 to 16 1-2 lbs.; half a dozen rams, averaging 13 1-2 lbs.; ewes of the first shear reaching frequently to 10, 12, and as high as 14 1-2 lbs. As it regards size, or the mutton qualities, at least one dozen wedders and rams have the present year weighed from 150 to 194 lbs. averaging 165 lbs. The fleeces of the first shear rams averaging 12 3-5 lbs.: wedders, 10 1-6; ewes, upwards of 8 lbs.; a diminution readily to be accounted for in rather too great a preponderance in favour of the fine wool. Its length is from 6 to 7 inches; the quality of the greater part of it may be inferred from an extract of a letter annexed, from Mr. Anthony Morris, a gentleman well known for his distinguished attachment to the interests of agriculture, and its future elevation through the medium of appropriate education, and his friend Mr. Smith, of New Jersey.

'The sample of wool sent is one of the finest he has ever seen, and particularly so from its great length of staple; combining these two good qualities in the same animal is a great acquisition; the length may be owing to its being the first fleece, (as it truly was,) and perhaps will never be long again.'

The animal system is susceptable of much greater change than the generality of our farmers are aware. Immense profits and great reputation as breeders, are obtained by wool growers in England. The following extracts from the Encyclopedia of Agriculture, will show the attention which is given to breeding in

England, and afford our farmers some useful directions.

"In the breeding of sheep a greater degree of perfection has been attained than in any other live stock; and in this branch, in particular, the breeders of England stand higher than those of any other country. Bakewell, by careful selection during several generations, raised his stock to a state of excellence, in regard to fattening at an early age with a moderate consumption of food, and with the smallest proportion of offal, which has been with difficulty equalled, certainly has not been exceeded, by the most skilful of his successors. It is a striking instance of the division of labor and skill, that there are breeders who devote themselves entirely to the breeding of rams for the purpose of letting out on hire. This practice originated in Lincolnshire, where in the early part of the last century, rams were let out at 10s. to 20s. each; but so great has been the improvement since that period that they are now let out to common graziers at from 1 to 10 guineas, and to breeders of rams at from 20*l.* to 200 guineas. The breeding rams are shown for hire at certain times and places during the summer, where every one may select such as promise to maintain or improve the particular state of his flock, and at such prices as his means and experience may justify. Two or more individuals frequently join together in the hire of one ram, to which they put the best of their ewes, for the purpose of obtaining superior males for the future service of the rest of their flocks; and in particular cases, when the owner of the ram does not choose to part with him, even for a season, ewes are sent to him to be covered at a certain price per head; superior animals of this class being very seldom sold altogether.

"A single ram thus communicates its valuable properties to a number of flocks, often in distant parts of the country, without distracting the attention of ordinary breeders from their other pursuits.

"The two methods of breeding common to all animals are also adopted in breeding sheep. Breeding from different families of the same race, commonly called breeding *in and in*; and breeding from different races, generally called *cross breeding*. Bakewell, according to Sir J. Sebright, (On improving the Breeds of domestic Animals, &c.) effected his improvements by breeding from the same family; but according to Hunt, who has written an able answer to Sir J. Sebright's pamphlet, he bred from different relationships of the same family; it being out of his power to breed from different families of a race which he was at the time employed in forming, and cross breeding he did not approve of.

"Breeding from different families of the same race is the more general and approved practice. When a number of families of any breed have been for some time established in a variety of situations, and have had some slight shades of difference impressed upon them, by the influence of different soils and treatment, it is found advantageous to interchange the males, for the purpose of strengthening the excellencies, or remedying the defects of each family. Of this advantage, Bakewell could not avail himself; but it has been very generally attended to by his successors.—Culley, for many years, continued to hire his rams from Bakewell, at the very time that other breeders were paying a liberal price for the use of his own; and the very same practice is followed by the most skilful breeders at present. In large concerns, two or more streams of blood may be kept distinct for several generations, and occasionally intermixed with the happiest effects, by a judicious breeder, without having recourse to other flocks.

"In breeding from two distinct races, the object is to acquire new properties or remove defects. The mode of effecting this by cross breeding is attended with greater difficulties than in breeding from the same race. The very distinction of breeds implies a considerable difference among animals in several respects; and although the desirable property be obtained, it may be accompanied by such others as are by no means advantageous to a race, destined to occupy a situation which had excluded that property from one of its parents. To cross any mountain breed with Leicester rams, for example, with a view to obtain a propensity to fatten at an early age, would be attended with an enlargement of size, which the mountain pasture could not support; and the progeny would be a mongrel race, not suited to the pastures of either of the present breeds.

"As general rules in crossing breeds it is to be noticed that in every case where the enlargement of the carcase is the object, the cross breed must be better fed than its smaller parent. The size of the parents should also be but little disproportioned at first; and when some increase has been produced, one or more crosses afterwards may raise the breed to the required size. With these precautions, there is little reason to fear disappointment, provided both parents are well formed.

"The most advantageous and proper age for ewes taking the ram in the different breeds has not been fully shown; but from a year to a year and a half old may be sufficient, according to the forwardness of the breed and the goodness of the keep.

"In regard to the season of putting the rams to the ewes, it must be directed by the period at which the fall of the lambs may be most desirable, which must depend on the nature of the keep which the particular situation affords.

"The practice of turning a number of rams among the flocks, formerly adopted, is highly exceptionable,

as tending to prevent the main object, and injure the rams. A better way is to let each ram have a proper number of ewes, and with very choice stock to keep the ram in an inclosed small pasture, turning a few ewes to him, and as they are served replacing them with others. By this means there is more certainty, and more ewes may be impregnated. In such sort of fine stock, it is likewise of great utility to keep the rams during this season in a high manner. In this view a little oats in the straw, or a mixture of barley and pea meal, are excellent. Where ewes are backwards in taking the ram, the best means to be employed are those of good stimulating keep. The rams should always be continued with the ewes a sufficient length of time.

ART. 155—*Vegetable Articles of value from Denmark.* (Communicated for the N. Y. Farmer, by Dr. Saml. L. Mitchill.)

The distinguished savant Hoffman Bang, in a letter I very lately received from him, dated at his residence in Hoffman's grove, writes thus: "I owe you many obligations for the memoirs, &c. which you sent me by Mr. Wheaton. It would be exceedingly agreeable to me that I could be useful to you in some way. I accordingly send you a collection of minerals from Norway; three tracts on gardening; seeds of different sorts of garden plants, pot-herbs, and flowering vegetables, which, I hope, may thrive in your American soil. I will endeavour to forward you another collection in season for planting in the spring of 1829. I earnestly request your Horticultural Society will send me something of the like kind in exchange. I could despatch them the best sorts of fruit trees that we cultivate here. Supposing that a collection of the Algæ, arranged upon the system of Mr. Lyngbye, might be agreeable to you, I pack up the accompanying collection of these rare productions of the sea."

Among these articles are nine varieties of peas, viz. the green branched pea; the English pea called maiklut; green pea of France; early pea of Flanders; another early pea called the Maydolber; Dutch early pea; another early pea named horn-harred, highly esteemed in the market of Copenhagen; another Dutch pea, and the Dorman pea.

Ten sorts of melon seeds.

Ten varieties of pumpkin seeds.

Twelve kinds of ornamental flowers.

And a parcel of the Tetragonia Expansa, or New Zealand Spinnage.

The cryptogamic individuals of the marine herbarium of Mr. Bang, consist of one hundred and seventy species, all in fine preservation, and classed, named and labelled according to the most modern improvements. Among the articles received, are a number from the shores of Denmark, Norway and Finland; but a large part of the collection is marked as belonging to this magnificent gentleman's own estate of Hoffman's grove. It is curious to observe with what laborious skill and phytological industry, Mr. Lyngbye has clasified these minute and difficult objects. Among them is the genus *Bangia*, named after the illustrious donor, and the *Oscislatoria* which attaches the loose particles of submarine soil together, and forms a coherent body underneath. The able author has written a particular dissertation upon an important species of this vegetable, eminently operative in fastening a sandy bottom in such a manner as to render it adhesive and firm.

The mineralogical articles consist of about thirty species, chiefly from the memorable region of Arendal, which bear a remarkable resemblance in their exhibition of original rocks, to the primitive formation of New-York city and its vicinity. These, like the other specimens, are accompanied by a scientific catalogue, allowing comparative examination.

ART 156.—Miscellaneous.

Querries to Mr. Wilson.—Mr. Editor, I wish, through your impartial work, to make a few inquiries of Mr. W. concerning the meaning of some singular expressions contained in page 165.

1st. As an individual, I should wish to know from Mr. W. what are the European limited rules alluded to; and in whose writings are they to be found? For my own part, I have always understood that the rules and limits of European landscape gardening, were according to the situation, extent, &c. of the estate, taste and means of the proprietor. If in our country we can extend these beyond that, I shall think it very strange.

2d. How are we to understand Mr. W. when he says, "our remarks will be in accordance with the idea of our maintaining and improving one natural, grand, noble and national characteristic of rural excellencies;" does he mean there is something more natural, grand, noble, national and excellent in American rural scenery, than what is to be found in Europe, or are we to understand by this sentence, the mere clink and jingle of words?

3d. When Mr. W. adds to the above quotation, "the lover of rural scenery, instead of being under the necessity of entering, as in Europe, the guarded gates of the great and opulent, in order to obtain the gratification of such a view, will only have to enter the precincts of any of the public roads, &c.;" are we to understand by this, that in entering the precincts of public roads in Europe, we cannot equally obtain

the view of a country animated with the majestic and varied beauties of the hand of nature as is to be seen in our own country? If this be the meaning of the sentence, I am at a loss to account for the beautiful picture that has been exhibited to us of that country, by travellers in general.

ANTI INDIGENOUS CONCEIT.

Refining Cider.—To refine cider, and give it a fine amber colour, the following method is much approved of: take the whites of six eggs, with a handful of fine beach sand, washed clean; stir them well together; then boil a quart of molasses down to a candy, and cool it by pouring in cider, and put this, together with the eggs and sand into a barrel of cider, and mix the whole together. When it is thus managed, it will keep for many years. A piece of fresh bloody meat put into the cask, will also refine the cider, and serve for it to feed on.

A dozen of sweet apples, sliced into a cask of cider, have been found advantageous. Three quarts of good wheat, boiled and hulled, put into each hogshead, it is said, improves the liquor, and prevents its becoming tart.

To clarify cider with isinglass, pour into each vessel about a pint of the infusion of about sixty grains of the most transparent of this glue, in a little white wine, (any common sour wine, or well wrought cider, perhaps will do as well) and rain or river water, stirred well together, after being strained through a linen cloth. This viscous substance spreads over the surface of the liquor, and carries all the dregs with it to the bottom.

A quart of honey, or molasses, and a quart of brandy or other spirits, added to a barrel of cider, will improve the liquor very much, and will restore that which has become too flat and insipid. *Far. Lib.*

Economy in using Fuel.—It is well known to philosophers that when water commences boiling in the open air, no additional fire can make it any hotter. A contrary opinion prevails, and those employed in cooking victuals think they cannot make the fire too intense. The fuel added for this purpose is, in fact not only a wanton waste, but by causing a violent ebullition it forces from the victuals, with the steam its finest flavour. Much fuel might therefore be saved in families, if in cooking, no more fuel were used than to keep the water just at the boiling point, besides the victuals would be much better for it.—*Agricultural Essays.*

Frozen Turnips.—During severe frosts, turnips become so hard that no animal is able to bite them. The best remedy in this case is, to lay them for some time in running water, which effectually thaws them; or, in close feeding houses, the turnips intended for next day's use, may be stored up over night, in one end of the building, and the warmth of the animals will thaw them sufficiently before morning. But in those months when frosts are usually most severe, it is advisable to have always a few day's consumption in the turnip barn. When a severe frost continues long, or if the ground be covered deep with snow, potatoes ought to be employed as a substitute.

Nutrition of Turnips.—The nutritive powers of the different varieties of turnips, appears to be as follows:—

64 dr. of the Swedish turnip, or *Ruta Baga*, afford of nutritive matter,	110 grains.
64 dr. of the stone or garden turnip	85
64 dr. of the common, or white loaf	80
64 dr. of the tankard, or long-rooted	76
54 dr. of the Norfolk white turnip	83

The quantity of nutritive matter contained in different roots of the same variety, varies according to the size and texture of their substance. A root of the white loaf variety, measuring seven inches in diameter, afforded only seventy-two grains and a half, while the same quantity of a root which measured only four inches, afforded eighty grains. The middle sized roots of the common turnip are therefore the most nutritious; as, on the contrary, are the largest roots of the Swedish turnip, affording 110 grains, while the middle sized and smaller roots afforded only 99.

100 grains of the nutritive matter of white turnips appeared to consist of mucilage 16, sugar 82, albumen or gluten 2-100 grains.

Krameria triandra, Rhatany.—An under-shrub of Brazil, with short, oblong, hairy leaves, and four-petaled, pink flowers. The roots very long, branched, and spreading; of a blackish red colour externally, red internally, and intensely styptic and bitter. A tincture of them made with brandy, approaches very nearly to the flavour, and has exactly the colour, of port wine; and it is imported to Portugal in immense quantities, and used in the manufacture of that wine. By analysis, it contains 40 per cent of tannin, and 48 per cent of woody matter, with 10 per cent of gallic acid, and a very little gum and fæcula. In medicine it is used as a tonic: and by Sir Henry Halford, in fluor albus, with the most market success.

Amherstia nobilis.—A tree of a new genus, thus named by Dr. Wallich, has been discovered in the provinces recently ceded to Great Britain by the Burmese. It grows to the height of about forty feet, and bears large pendulous panicles of vermillion blossoms, forming an object of unrivelled splendor in the Flora of India. The Burmans call the tree Thoka, and the flowers are offered to the images of their saints.

Maple sugar.—A new article of commerce is noticed in our Review of the Market. Upwards of Three Hundred barrels of Maple Sugar have been received

by the Canal, which has been sold at five cents a pound. Last season, we understand, a parcel of about seventy barrels was rece ived. It is supposed the manufacture of this article will increase and it will soon be one of considerable importance. The supplies of Sugars from New-Orleans have already increased to such an amount that they are rapidly taking the place of Foreign Sugars, and it is supposed by many intelligent persons, that in a very few years the supplies of New Orleans and elswhere, will be sufficient for the consumption, and that no Foreign Sugar will be required.

Pears.— In Salem, Mass is a pear tree, which was planted adout 30 years ago, and has never been engrafted or inoculated, yet yields two sorts of fruit, unlike in size, shape and appearance, growing on the same branches, and from blossoms of the same bunch. The tree sprung from the seed of the St. Germain pear. The pears of the larger kind are mentioned as fit for eating, while the others would not be ripe for several w eeks.

Sumack grows spontaneously in Virginia, and has been treated as a weed; but this year it has been collected by women and children, and sold for use to dic "morocco leather." The leaves sell for from one to two dollars per cwt. and the season for gathering is long. Thousands of dollars have been paid the past summer for the article.

Dried Cherries are a very useful article for the dessert in the winter and spring. Nothing can be more easy than to dry them. Gather when ripe, and do not break or bruise the skin; spread them on earthen-ware dishes, and place them in a very cool oven; the next day increase the heat and, at the end of a few hours, they will be found sufficiently dry for putting into close vessels. The Kentish cherry, being rather acid, requires a loger time than other cherries; but they are more valuable, because, in fevers, they are used to moisten the mouth.—*Lou.*

Criterion of a beautiful Cow, according to Wilkinson, may be thus expressed.

She's long in her face, she's fine in her horn,
She'll quickly get fat, without cake or corn,
She's clear in her jaws, and full in her chine,
She's heavy in flank, and wide in her loin.

She's broad in her ribs, and long her rump,
A straight and flat back, with never a hump;
She's wide in her hips, and calm in her eyes,
She's fine in her shoulders, and thin in her thighs.

She's light in her neck, and small in her tail,
She's wide in her breast, and good at the pail,
She's fine in her bone, and silky of skin,
She's a Grazier's without, and a Butcher's within.

Leaves and bark of trees as fodder for cattle.—Near Seldon, (Switzerland) the leaves of the nut and the elm are used in a particular manner. Gathered when in their prime, they are ground into powder. In this state they are given to swine, mixed with their customary drink, in the winter; and our author was assured that this food fatten d them as well as barley meal. In the Oberland, the bark of the young oak, peeled off in the spring dried and ground, is found to be equally healthy and nutritive for all kinds of cattle. We mention those things, because a knowledge of them may be useful in the mountainous districts of our own country. *For. Rev.*

Good Farming.—J. L. Boylston, Esq., Princeton, in this state, has raised this year from three and a half acres, and twenty-eight roods of ground, *two hundred and twenty six bushels of Indian-corn*, averaging 61 1-2 bushels of shelled corn per acre; and also, on the same land, 50 cart loads of pumpkins, and 120 bushels of turnips. Who can beat this in Massachusetts.—*Boston Palladium.*

A Profitable Tree.—Mr. Samuel R. Johnson of Charleston, informs us that he has this year received the sum of $49 29 cts. for the produce of a single plum tree, of the *White Gage* species. The tree is but six years old.—*N E Farmer.*

Cetraria Islandica, Iceland Lichen, or Eringo-leaved Liverwort.—A native of the mountainous heaths and woods in the alpine parts of Britain. The late Sir J. E. Smith gathered it on the Pentland Hills near Edinburgh, on Benlomond, and in various parts of Scotland. In Sweden, Norway, and Iceland, the the plant is much more luxuriant than in Britatn. The plant here seldom exceeds 3 in. in height, and is erect and bushy. "The fronds form loose, elegant tufts, they are membranous, somewhat cartilaginous, channelled below, variously sinuated, and lobed; the lobes being irregularly divided, notched, and fringed at the margin with hairs. The surface of the whole vegetable is smooth, shining, of a rich chesnut brown color, with a green tinge when wet, paler underneath. In such plants as grow in the shade, the color is a pale brownish green. The fructification, or shields are dark chesnut, large, polished, flat, without any border, growing close to the upper surface of the fronds. By analysis, 100 parts of this moss are found to contain 44 of starch, and 36 of starchy insoluble matter, so that it must be very nourishing in proportion to its bulk, and capable of yielding ardent spirit. The Saxon government lately published their report, for the information of its mountainous districts, where this moss abounds, by which it appears that 6 lbs. of lichen meal, boiled with 14 times its quantity of water, and baked in this state with 39 1-2 lbs. of flour, produced 111 lbs. of good household bread. At present, "nearly all the Iceland moss collected in Germany, is sent through Hamburg to this country, where it is used in brewing, and in the composition of ship biscuit, whereby they are not attacked with

worms, and suffer little from the action of sea water." Medicinally, it is used in decoction as a demulcent, equal in its effects to linseed and marshmallows. It does not cure consumption of the lungs, as some suppose; but in the last stage of that disease, when solid food is oppressive, it checks diarrhœa, and imparts vigor and nourishment to the digestive organs. *Gar. Mag.*

Venerable Orange Tree —There is an orange tree, still living and vigorous, in the orangery at Versailles which is well ascertained to be above, 400 years old. It is designated the Bourbon, having belonged to the eclebrated constable of that name in the beginning of the 16th century, and been confiscated to the crown in 1522, at which time it was 100 years old. A crown is placed on the box in which it is planted, with this inscription, "Sown in 1421." (*Ex. Jour. Bristol Nurs. Lib. Society.*)

Choice of Live Stock.—Small sized animals are more easily kept, they thrive on shorter herbage, they collect food where a large animal could hardly exist, and hence are more profitable. Their meat is finer grained; produces richer gravy, has often a superior flavor, and is commonly more nicely marbled, or veined with fat, especially when they have been fed for some time. Large animals are not so well calculated for general consumption as the moderate sized particularly in hot weather. Large animals are not so active, require more rest, collect their food with more labor, and will only consume the nicest and more delicate sort of plants, Small cows of the true dairy breeds give proportionably more milk than very large ones. Small cattle may be fattened solely on grass of even moderate quality; whereas the large require the richest pastures, or to be stall fed, the expence of which exhausts the profit of the farmer. It is much easier to procure well shaped and kindly-feeding stock of a small size than of a large one. Small sized cattle may be kept by many persons who cannot afford either to purchase, or to maintain large ones, and by whom the loss, if any accident should happen to them, is more easily borne. The small-sized sell better; for a butcher from a conviction that, in proportion to their respective dimensions, there is a greater surface of valuable parts in a small than in a large animal, will give more money for two oxen of twelve stone each per quarter than for one of twenty. *Lou.*

Important improvement in the tanning of Leather. Mr. Travis of Connecticut, has recently patented an improved method of tanning leather, by which seventy-five per cent is saved in the expense of materials. The quantity of bark used is no more than sufficient to produce the usual color. The leather is found, by satisfactory experiments, to be double te ength of that tanned in the usual manner. It is particularly adapted for belts, bands, bellows, and setting card teeth. The thickest hides can be tanned in less than eight weeks, and sheep skins in a few days,—making the latter almost as strong and durable as calf skins tanned in the old way. Specimens of this article can be seen at the Office of the New-York Farmer.

Indian Corn in England.—Mr. Cobbett has now at Barn-Elms Farm, (near London,) a piece of 11 acres of *Indian Corn* which he assures me, will yield him 1,200 bushels of ears; and, that it will surely get ripe notwithstanding the badness of the season. He is sure that England will now become an Indian-Corn country, and that in ten years, a man that should fatten a hog on *barley* would be deemed, and justly deemed, a fit subject for a mad-house.

New-York, Oct. 1828 GEORGE WOODWARD.

[The humidity of the air in England, and the want of that intense heat which is so favourable to the growth of corn in this country, incline us to think, Mr. Cobbett is rather too sanguine in his expectations. He may however, by obtaining his seed from this country for a few years, succeed in acclimating this wholesome and important grain.]

Annual Consumption of London.—The number of oxen annually consumed in London has been estimated at 110,000, calves 50,000 sheep 770,000, lambs 250,000, hogs and pigs 200,000, besides animals of other kinds. The total amount of Butchers' meat sold at the principal market, which in Smithfield is estimated at £8,000,000, annually. There are on an average annually brought to billingsgate market, 2500 cargoes of fish, of about forty tons each, about 20,000 tons by land carriage; in the whole 120,000 tons. The supply of poultry being inadequate to the demands, the prices are consequently high, and that article is mostly confined to the tables of the wealthy. The consumption of wheat in London may be estimated at 900,000 quarters, each containing eight Winchester bushels: of porter and ale 2,000,000 barrels, each containing thirty six gallons; wines 65,000 pipes; butter 21,000,000 lbs.; and cheese 26,000,000 lbs. The quantity of coal consumed is about 1,200,000 chaldrons of 36 bushels, or a ton and a half to each chaldron. About 9600 cows are kept in the vicinity of London, for supplying the inhabitants with milk, and they are supposed to yield nearly 7,900,000 gallons every year, even this great quantity, however, is considerably increased by the dealers, who adulterate it, by at least one-fourth, with water, before they serve their customers. The difference of feeding cattle about the year 1700 and at the present period, 1828, is strikingly illustrated by the following comparison:—In the year 1700 the average of the oxen sold in London market was 370lbs; of calves 50 lbs.; of sheep 23 lbs.; and of lambs 18 lbs.

The present average weight is, of oxen 800 lbs.; of calves 140 lbs.; of sheep 80 lbs.; and of lambs 50 lbs.

Knickerbocker pickle for beef and pork.

After an experience of nearly half a century it has been found that the pocock, alias Knickerbocker pickle for beef and pork is the best that has ever been used in any country for preparing winter provisions, hundreds of house-keepers can attest its excellence. Some butchers last year prepared their pork according to the Pocock receipt, and readily sold their pork in market at an advance of one cent per lb. though in fact the difference in expense of preparing the Pocock ought not to raise the price of the pork one quarter of a cent on the pound. If the farmers of this State would adopt this pickle and indicate by a brand mark, how put up, their produce would command a preference in our markets—and abroad, would give a decided and favorable character to the New York beef and pork. Recept for pickling 1 cwt of pork, ham, beef, &c.—Take 6 gallons of water, 9 pounds of salt, half coarse half fine, 3 pounds of brown sugar, 1 quart of molasses, 3 ounces of salt petre, 1 oz potash—boil and scum them well, and when cold pour it on your beef, rub your beef with fine salt. Put the above ingredients into a clear pot or kettle and let it boil, being careful to take off all scum as it comes to the surface. When the scum ceases to rise, take the liquor off and let it stand till it is cold then having put the meat you want to preserve into the vessel you intend to keep it in, pour the liquor over it and let it stand.

The editors of papers in the city and country will confer a substantial benefit on our farmers, by a general circulation of the preceding receipt, and insure to the citizens an ultimate benefit, as they form a great portion of the consumers of all choice provision.

Apple Trees.—I have uniformly observed that those kinds of apples whose blossoms spread out wide, and have the florets separate from one another, suffer far less from the frost than those trees which have close and combact clusters of flowers. The Juneating is an example of the one, and has this year suffered nothing; the Ribstone Pippin may be mentioned as an instance of the other, and has this season suffered very materially. (*Loudon.*)

Cedar a non-conductor of Electricity.—A house occupied as a gig-maker's shop, was struck with lightning. It was built of wood and covered with pine slabs, and the rafters composed of *oak* and *cedar*. A cedar and oaken rafter are joined at top, a cedar piece and oaken piece making one rafter; and in putting them up, the cedar and oaken parts of the rafters ate placed alternately on each of the sides of the framing. When the lightning struck, it commenced at the southern extremity of the building, and in every instance shivered the oaken parts of the rafters, and did not so much as leave a sign of its touch upon the cedar. The electric fluid actually skipped over every rafter of cedar, and rent in splinters every one that was of oak; and, although the cedar and oaken rafters were nailed together at the top, yet, wonderful to tell, even the iron appeared to lose its attractive quality, and the cedar was left untouched, the fluid seeming to evade the cedar and spend the whole of its violence upon the oaken rafters, splintering them upon one side and the other, throughout the length of the building.

It is also stated that there never has been known an instance of a cedar tree having been struck by lightning. If this be true, it is an invaluable discovery to ladies and gentlemen who are nervous in a thunder storm.

The laurel, also, was thought by the ancients to be a tree invulnerable to, or rather sacred from the thunder-stroke. Hence a wreath of it was a proper reward for heroes. We do not know whether modern science has found any reason in this ancient superstition.—*Richmond Enquirer.*

[There is more than one kind of cedar—what species was the above?]

Erica vulgaris.—Common Heath; called Ling in England, and Heather in Scotland.—When dry pastures abound with this plant, they take the name of heaths. Bees exact honey largely from the flowers, which is of good quality, but of a reddish color. In the Highlands of Scotland, the poorer inhabitants make walls for their cottages with alternate layers of heath, and a kind of mortar made of black earth and straw. They make their beds of it by placing the roots downwards, and the tops uppermost; they are sufficiently soft to sleep upon. Scott says—

"———— the stranger's bed
Was there of mountain heather spread,
Where oft a hundred guests had lain,
And dreamed their forest sports again;
Nor vainly did the heath-flower shed
Its moorland fragrance round his head."

Wholesale Extreme Prices of Country Produce for the month of October.

Beeswax, white, lb. 30 a 35; do. yellow, 22 a 24; Flax, lb. 8 a 9; Flour, wheat, N. Y. $6 a 7; Western, 6 62 a 7 1-2; Rye, 3 a 3 75; Indian Meal, 3 a 3 12 1-2; Wheat, 1 30 a 1 50; Rye, 60 a 58 cts.; Oats, 28 a 38; Barley, 56 a 74; Corn, yellow, 56 a 57; White Beans, 7 buls $8 a 9; Dry Peas, do 4; Hemp, Amer. dew rotted, ton, 150; Honey, 10 a 12 1-2 cts.; Hops, 00; Mustard, lb. 25 a 40; Beef, Mess, bbl. $10 a 10 50; Prime 6 25 a 6 50; Pork, Mess. bbl. 14 50 a 15; Prime, 11 75; Lard, per lb. 6 1-4 7 1-2 cents; Clover Seed, 00; Timothy, 00; Tallow, 7 1-2 a 00; Wool, Merino, 50 a 75; mixed, 27 a 30; common, 20 a 28; Hatters, 17 a 28.